THE AMERICAN JOURNAL of OCCUPATIONAL THERAPY

OFFICIAL PUBLICATION OF THE AMERICAN OCCUPATIONAL THERAPY ASSOCIATION

Vol. IV, No. 6 | 1950 | November-December

TABLE *of* CONTENTS

ARTICLES

A Proposed Handbook of Ceramics Techniques for Use In Occupational Therapy 241
Elizabeth Engelke, O.T.R.

A Suggested Treatment in Occupational Therapy for Patients with Multiple Sclerosis 247
Elizabeth W. Whitaker. O.T.R.

Winning Thesis—The Emotional Problems of Behavior in the Spastic, Athetoid and Ataxic Type of Cerebral Palsy Child 252
Peggy Derse

Daily Activity Inventory and Progress Record for Those with Atypical Movement 261
Mary Eleanor Brown, M.A., Physical Therapist

DIVISIONS

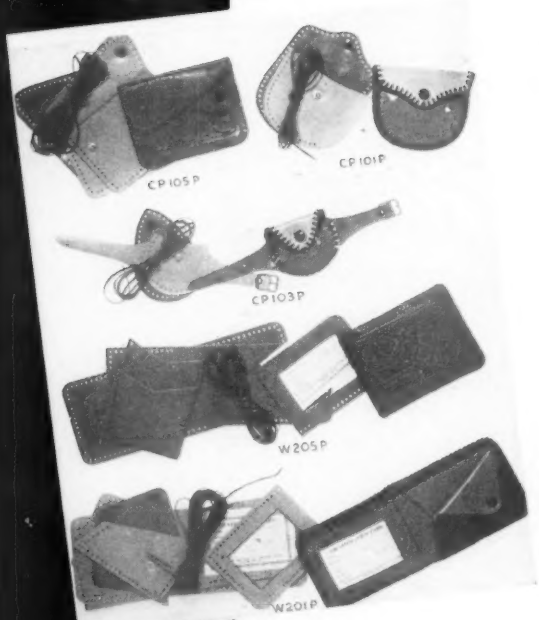
Editorial Staff 279
Nationally Speaking 273
People You Should Know.. 281
Clare Spackman, O.T.R.
Featured O.T. Departments 282
San Francisco Rehabilitation Center

FEATURES

A.O.T.A. Officers 288
Classified Advertising 289
History of Service 285
Legislative Comm.
Comm. on Research

Copyright 1950 by the American Occupational Therapy Association. New York 18, New York. Published bi-monthly.

Rx for Progress:

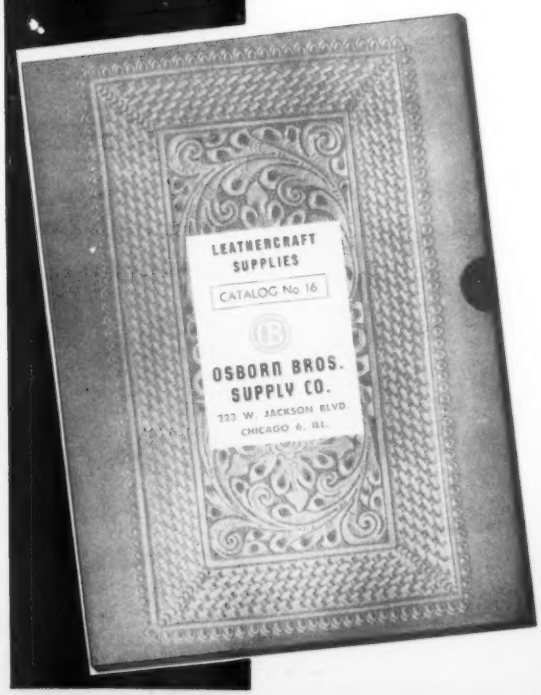


OSBORN LEATHER-CRAFT PROJECTS

Promote Recovery with Occupational Therapy

Osborn Bros. offer a wide range of easily done, "ready-to-be-put-together" craft projects that keep patients' minds occupied with hours of constructive activity, pleasure and recreation. Each project kit contains complete instructions and material. You'll find our prices moderate, and well within reason for both individuals and institutions. We specialize in craft-project supplies and will submit estimates upon inquiry.

FREE! NEW 68-PAGE "IDEA BOOK"



You'll find our new catalog a wonderful source of ideas for your craft projects! It contains illustrations, diagrams, descriptions and specifications for a big variety of interesting and useful articles from axe sheaths to totem poles. Gives suggestions as to materials, tools, techniques. We've made a sincere effort to include projects that would be suitable for occupational therapy departments in Veterans Administration and other hospitals, and we're especially equipped to give these units prompt service. Get your copy of this helpful catalog **today!**

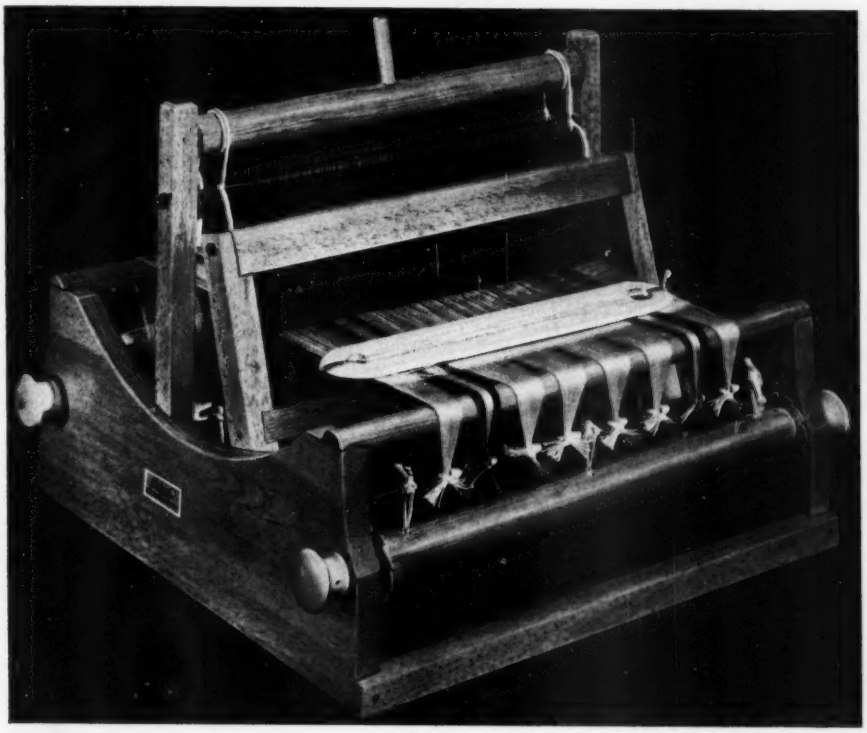
OSBORN BROS. SUPPLY CO.

"The House of Leathercraft"

223 W. Jackson Blvd., Chicago 6, Ill.

Weaving is Easy WITH THIS NEW INEXPENSIVE LOOM

This healthy, pleasant activity is now easier to teach and easier to learn at home than ever before. This assembled loom kit contains a loom with a luncheon set already started on it, and all equipment and supplies needed to finish it. Ideal for beginners and amateur weavers.



Lily Mills, who manufacture weaving yarns and hand weaver's supplies, have created this practical loom and kit as a result of months of research and development by experts, to afford the beginner an easy, inexpensive way to learn hand weaving.

Loom Specifications

Overall width 18".
Overall depth 15".
Height 15".
Weaving width 12".
288 metal heddles.
12" steel reed, 12 dents to the inch, weave up to 24 ends to the inch.
Metal ratchets on both ends of the beams.
Positive, easy shedding action, with wide shed.

1. Loom complete and in working order, warped with enough yarn to weave 4 luncheon place mats and a center piece, all necessary yarn for filler and the weaving on the first piece started—with *complete directions for finishing.*

2. Two flat shuttles.

3. Warping pegs for making other warps for weaving a variety of projects.

4. A reed hook for threading.

5. Book of directions for making a number of different articles, luncheon sets, napkins, stand covers, runners, cocktail napkins, fingertip towels, men's wool scarves and the like.

6. Complete set of yarn samples and illustrated catalog.

A COMPLETE HAND WEAVING OUTFIT

with a table runner already started on the loom, plus yarn to finish. Here is the Lily Weaving Kit that will start you off on years of enjoyment.

$18.75

POSTPAID COMPLETE

Send in this coupon today

LILY MILLS COMPANY, Dept. N, SHELBY, N. C.

Check or Money Order ☐ C. O. D. ☐ | You SAVE when payment accompanies order. Postage and C.O.D. fees are added to C. O. D. orders.

Please send me Parcel Post

1 Complete Lily Weaving Kit as described above, $18.75

NAME _____

PLEASE PRINT

ADDRESS _____

CITY _____ ZONE _____ STATE _____

Published bi-monthly by the American Journal of Occupational Therapy. (Address all communications to Editorial Publishing and Advertising Circulation Departments, 1916 East Glendale Avenue, Milwaukee 11, Wisconsin.) Entered as second class matter at Post Office, Milwaukee, Wisconsin, under the act of March 3, 1879. Subscription rate $5.00 a year. $1.00 per single issue.



Kits for every grade of activity, from simple to advanced. Buy direct by mail and save.

ROBERT J. GOLKA CO.

400 Warren Ave.
Brockton, Mass.

POTTERS WHEELS



For twenty-five years the leading British design for Occupational Therapy, Handicraft Classes and Art Potters. Foot or Electric Drive Models available for prompt shipment.

Catalogue and prices gladly sent on application

POTTERS EQUIPMENT CO.

73-77 BRITANNIA RD., LONDON, S.W. 6

STATEMENT OF THE OWNERSHIP, MANAGEMENT, AND CIRCULATION REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946 (Title 39, United States Code, Section 233)

Of American Journal of Occupational Therapy published bimonthly at Milwaukee, Wisconsin for October 1, 1950.

1. The names and addresses of the publisher, editor, managing editor and business managers are: Mrs. Lucie Spence Murphy, 1916 E. Glendale Ave.

2. The owner is:
American Occupational Therapy Association, 33 W. 42nd St., New York 18, N. Y. A non-profit professional organization incorporated under the laws of the District of Columbia. No stockholders. Income derived from dues of 2933 members.

3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: none.

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

5. The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: 3330.

LUCIE SPENCE MURPHY

Sworn to and subscribed before me this 26th day of Sept., 1950.

(SEAL) MILDRED NEMETZ
(My commission expires Oct. 19, 1950.)

Occupational Therapists

Our 80 page catalog is a valuable reference for every O.T. Its pages will give you many new ideas for creating new interests and new projects, whether it be Leather, Metal, Weaving or Plastics.

QUALITY TOOLS AND SUPPLIES
FOR EVERY CRAFT

Write for your catalog today!

American Handicrafts Company, Inc.

45 SOUTH HARRISON STREET
EAST ORANGE, NEW JERSEY

RETAIL STORES
AND STUDIOS:

12 E. 41st St.
New York City

54 So. Harrison St.
East Orange, N. J.



A fascinating new craft

CASTING WITH PLASTICS

No special equipment or machinery necessary

- As easy as pouring water out of a glass.
- Hardens quickly. A wide variety of castable materials—clear plastic or opaques that are similar to ivory, ebony, marble, porcelain, stone. Mold-making simplified with our new rubber and latex compositions.
- SCHOOLS throughout the country are adapting PLASTICAST products to their Manual Training and Vocational courses.
- WRITE for large free catalog which explains methods fully.

HOBBYCAST PLASTICS, INC.

4637 N. Kedzie, Chicago 25

Western Office: Plasticast Company, Dept. 25, P.O. Box 987, Palo Alto, Cal.

LEATHERCRAFT KITS



to provide diversion and extra money!



THIS CATALOG TELLS HOW

You can enrich your therapy program by investigating the possibilities that our leather craft line offers. Write for this free book.

EXCELLENT LINK IN O. T. WORK

Occupational Therapists all over the country have praised our product.

Many use it as the first step in their training program. For fourteen years we have been concentrating on the "occupational" factor in Therapy Training, to provide hundreds of handicapped people a means of adding to their income through the sale of finished leather products made from our craft kits.

S & S LEATHER COMPANY, INC.

Colchester 4, Conn.

CRAFT METALS

STERLING SILVER
SPECIAL BRONZE
NICKEL SILVER
COPPER
BRASS
ALUMINUM
PEWTER
FLUXES
SILVER SOLDERS

CATALOG ON REQUEST
TO
OCCUPATIONAL THERAPISTS

T. B. HAGSTOZ & SON

709 Sansom St. Philadelphia 6, Pa.

QUALITY METALS
SINCE 1898

AMACO

ART and CRAFT SUPPLIES

MODELING CLAYS
Non-hardening and Self-hardening

ART MATERIALS
Finger Paint, Showcard Colors, Fabric Paint, Crayons

POTTERY SUPPLIES
Kilns, Wheels, Clays, Glazes

FREE ON REQUEST



- Catalog No. 9 Amaco Art and Craft Materials, 24 pages.
- Catalog No. 39 Amaco Pottery Supplies and Equipment, 48 pages.

American Art Clay Company
4717 W. 16th St., Indianapolis 24, Ind.

May we serve you?



CATALOG
No. 192-3

Quick Work

COIN and KEY CASE

A space saver — this combination Coin and Key Case folds down to 2¾" x 3¾" and fits into one corner of purse or pocket. The 4-hook key frame, 2 card pockets and a coin pocket are included.

Unpunched 85c Goat Lacing



CATALOG
No. 192-7

Quick Work

CIGARETTE CASE

This attractive item accommodates either standard or king size cigarettes and the needed match folder. It is easily assembled and is very attractive when tooled with the design that is included.

Unpunched 65c Goat Lacing

SEND FOR CATALOG



WILDER-CRAFT

A DIVISION OF

WILDER AND COMPANY

1038 Crosby Street — Chicago 10, Illinois

Established 1877

THE AMERICAN JOURNAL

of

OCCUPATIONAL THERAPY

Official Publication of the American Occupational Therapy Association

November-December 1950 Vol. IV, No. 6

PROPOSED HANDBOOK OF CERAMICS TECHNIQUES FOR USE IN OCCUPATIONAL THERAPY[1]

ELIZABETH ENGELKE, O.T.R.*

Thirty spokes are made one by holes in a hub,
By vacancies joining them for a wheel's use;
The use of clay in molding pitchers comes from
the hollow of its absence;
Doors, windows, in a house
Are used for their emptiness:
Thus we are helped by what is not
To use what is.

—Laotzu, fifth century, B. C.

Translated from the Chinese
by Witter Bynner.

The careful integration of craft knowledge with the requirements of treatment constitutes one of the greatest challenges to the occupational therapist. Skills must be thought of, not for themselves but in terms of their application to the need of the patient. The relationship between art and its therapeutic usage must be established in the very beginning of student instruction, and, as long as standards of excellence are maintained, must continue to be an active part of the therapist's working philosophy.

Those arts are of major interest to the occupational therapist which are the most flexible in treatment application and which, because of the wide range of activities offered within them, stimulate the patient's interest. Ceramics may be considered such an art. Yet its very breadth of scope, in both technique and interpretation, has often served to discourage many therapists in using it as a treatment modality.

It was the purpose of this study to present the basic ceramics techniques combined with their possibilities for treatment application so that the completed work might comprise a handbook for the occupational therapist, whether at the student level or in the hospital situation.

Implicit in the main objective and vital to its full accomplishment was a second purpose, that of supplying as many variations of each method as could be secured from the sources consulted. The importance of variety is understood by all therapists, since they find that not only each craft but each variation within it may become a "tool for treatment."

Study Sources

Data for this study were drawn from several sources; from the pertinent literature, from ceramists, from therapists who were using ceramics as a treatment modality, and from the personal experience of the investigator.

Throughout the research, many factors seemed to indicate the lack of integration of technique and treatment. The faculty rosters of the accredited schools listed no teacher of ceramics who was also a registered occupational therapist. Yet, in most of the curricula "pottery," "modeling," or "ceramics" was a recommended, if not a required subject.

The search for previous studies in occupational therapy literature revealed many references to the use of ceramics as a therapeutic medium, but nowhere were such references combined with craft instruction. In their discussion of purposeful activities, Willard and Spackman comment that "Ceramics as a craft has been less used, perhaps, than it deserves."[2]

[1]Excerpts from a thesis presented to the Department of Occupational Therapy, University of Southern California, in partial fulfillment of requirements for the Master's degree, 1949.

The material in the main body of the thesis is, as might be assumed from the title, instructional in character, and resists treatment in brief form. In this article, therefore, no attempt will be made to abstract the "Handbook" itself. Instead, portions of the introductory and summarizing chapters and selected parts of one of the teaching chapters will be presented. The writer will welcome any comments and criticisms, especially those regarding the practicality of the expressed purpose.

*Clinical Training Supervisor, O.T. Dept., U.S.C.

Periodicals, manuals, and books on ceramics were legion, and ranged from "how-to-do-it" methods to highly technical analyses for the ceramic engineer. Here too, no text was found in which the art techniques were presented with those of treatment. Mention should be made, however, of occasional comments which appeared in the ceramic literature and seemed to indicate some awareness among these people of the therapeutic possibilities of their craft. George Cox wrote, toward the end of his book, after discussing educational values,

> *The valuable remedial effects of clay work upon the defective are perhaps less well known. The manipulation induces a most beneficial concentration and provides a fine discipline without a trace of inimical restraint.*[3]

In the Foreword of the Wren's *Finger-built Methods,* this single, rather challenging line appears: "Blind folk have so few crafts that it may be worth while to direct the attention of those interested to some of the methods described."[4]

Rich though the ceramic literature proved to be in craft instruction, the writer felt that more dynamic material could be collected by watching and talking with the potter at work. Arrangements were made to visit the ceramics department of several schools and colleges in the Los Angeles area, where methods of teaching might be observed. Somewhat more difficult to accomplish were interviews with commercial potters who guard their secrets carefully, since patent and copyright are, for the most part, denied them. Several became interested in the study, however, and made many valuable contributions; short cuts in method, "tricks of the trade," a few of their own personal "discoveries" in varying, simplifying, or elaborating upon standard techniques.

Ceramic methods were also sought for from occupational therapists, yet the prime consideration in this portion of the research was their use of ceramics under treatment conditions. In the course of the investigation written inquiry was made of all California hospitals which were listed as having occupational therapy departments. A surprisingly small number employed the craft, and of these, an even smaller number used ceramics in a remedial program. Rather than for lack of sufficient funds for equipment, the low percentage seemed to rest upon a degree of uncertainty felt by the therapists regarding their ability to use the medium effectively. Interest and willingness were found everywhere. Yet, in general, ceramics had but little place in the hospitals visited. Those therapists who were using it as a remedial activity made many substantial contributions to the study. Their evaluations of the craft took account of the limitations and contra-indications as well as of the recommendations for its use.

Like all the arts, ceramics is best understood through demonstration. To make the Handbook more graphic in its approach, action photographs were taken of many of the techniques. The writer prepared the material and performed the major steps in the ceramic process, using one simple form throughout the series. These photographs are inserted appropriately in the text.

Form and Content

Determination of the extent of the written material to be included was based on the chief requirement of any handbook—simplification without the loss either of vital content or of clarity. For this reason the six chapters dealing with craft instruction were divided into two parts: *Ceramic Process,* containing directions for the major techniques; and *Therapeutic Application,* presenting data dealing with the treatment usage of ceramics. Although every effort was made to supply as extensive a coverage as possible in this second part, it was intended to suggest and illustrate, not to prescribe treatment.

For purposes of ready reference, Chapters I through VI are arranged so as to follow, in sequence, the principal steps involved in the handling of the clay from its raw to its finished form: 1) preparation, 2) building,3) throwing, 4) modeling, 5) casting and pressing, and 6) ornamenting. No space is given to the actual firing procedures, since kiln operation is not, generally, a part of the treatment program, and many excellent references on the subject are available. For the same reasons there is no discussion of glaze preparation.

The second part of each of these six chapters, devoted to the therapeutic application of each process, contains data drawn principally from the clinical field, supplemented by the literature. Two areas of handicap are considered, representing two of the four major patient needs to which occupational therapy may be applied; physical, mental, social, and economic.[5] These two divisions are entitled "physical disabilities" and "mental involvements." The social and economic aspects of treatment are reserved for separate consideration in Chapter VII.

In selecting significant data from the field of physical disability, the following salient points, so ably outlined by M. L. Franciscus, O.T.R., were considered:

A. Joint limitation resulting from burns, fractures, arthritis, sprains, infections or prolonged immobilization, to be assisted toward restoration through
   1. passive stretching,
   2. active motion within limits of existing range,
   3. active motion beyond those limits, and
   4. active motion with added resistance.

B. Lower motor neuron injury, involving weakness or

flaccidity, working for increase in muscle power through the use of
1. exercise with gravity eliminated,
2. exercise against gravity,
3. exercise against gravity with graded resistance.

C. Restoration of muscular coordination lost through lesions in the cerebral areas and the central nervous system, using muscle reeducation methods which function to
1. establish balance of power
   a. with large muscle groups, then
   b. with the muscles of fine movement,
2. introduce conscious relaxation,
3. develop cortical, or voluntary, control.

D. General physical strengthening for cardiac and thoracic involvements, progressing from light and brief activity for promoting physiologic rest to active exercise within the limitations of the disability—in other words, a work tolerance program.

E. Loss of a part or its function, necessitating the development of skill in the remaining part:
1. Amputees, who may
   a. learn full function with the prosthesis, or
   b. transfer skill to remaining member;
2. The blind, for whom training must develop
   a. knowledge of spatial relationships,
   b. kinesthetic awareness, and
   c. tactile sensitivity.[6]

The therapeutic application of ceramics processes to cases of mental involvement constitutes the second approach in this division of each chapter. Clinical and reference materials were examined for their bearing upon the following general considerations:

A. Release from fear and anxiety through creative expression.

B. Exchange of destructive for constructive activity, relieving guilt feelings.

C. Release of tension and excess energy through acceptable expressions of aggression.

D. Development of powers of concentration and restoration of self-confidence through carrying projects to a successful conclusion.

E. Socialization of the withdrawn regressed patient through group activity.[7]

The concluding chapter (VII) is concerned with the value which ceramics as a total craft has been found to have for the social and emotional life of the patient. The possibilities for prevocational training toward the commercial, engineering, or academic fields are discussed. Emphasis is placed upon the active part played by the therapist in assisting the patient toward economic rehabilitation.

* * * * *

It is hoped that the following excerpt may give the reader an idea of the arrangement and the content of the Handbook.

CHAPTER III
BUILDING THE CLAY

Producing a satisfying form in pottery can be as free or as prescribed a business as one wishes it to be. Freedom of interpretation is implicit in the nature of clay and should never be lost through preoccupation with technique. The methods to be described, however, are ancient and honorable, and basic to the building of the clay. They have been found to offer many possibilities for use within the field of treatment.

I. THE CERAMIC PROCESS

Designing the form. It is important to have a design in mind before beginning to build. Make a full-sized drawing of the piece. If it is to be accomplished by the coil method, trace and cut the profile from a piece of stiff cardboard or thin plaster slab. This guide is known as the template (Fig. 2) and it will be used at intervals to assist in keeping the wall true to the chosen design.

. . . . . .

For the slab built piece draw and cut out a paper pattern for each section required. Make it somewhat oversize to allow for the shrinkage which Curtis describes as approximately ". . . one-eighth of an inch to every inch at cone 01."[8] These patterns may be straight sided for the square built forms or they may be curving sections if round forms are desired (Fig. 4). . . .

Allowing the clay to express design freely is often rewarding and sometimes produces surprisingly beautiful shapes. Simply roll out an irregular lump of clay on a plaster bat and use the resulting form as the bottom of the dish, adding a coil of clay for the wall, or bending the edges up slightly.

The coil method. The use of coils in building is perhaps the most primitive of all ceramic methods. Pottery fragments unearthed from the kitchen-middens of past civilizations furnish evidence that the clay was coiled and pressed into a rush or wicker basket which was then burned away, leaving the fire-hardened clay wall. Though no longer using the basket mold, the Indians of the southwest still fashion their pottery of coils.

For forming, the clay should be "... soft enough to roll but stiff enough so that several coils may be imposed on each other without going out of shape."[9] Roll a sizeable lump into a ball and flatten it on a plaster bat, pounding or pressing it with the palm of the hand until it is the desired thickness. Be sure that it is the same thickness throughout. Cut the circle required for the bottom of the pot.

1. Roll a fist-size ball of clay on the bench top until it becomes a thick chunky coil. Cut it into sections about an inch or two in length (Fig. 1). Keep them under a damp cloth, removing only one at a time when ready to roll it into a coil.
2. Using one of these sections, roll it lightly on the bench top, spreading the fingers wide (Fig. 1) until it becomes a coil about as thick as a lead pencil and perhaps eight or ten inches long. These proportions are not rigid and will vary, but the length should at least be sufficient to complete the circumference of the pot. Roll each coil swiftly and lightly since too much pressure will produce creases and air bubbles in the clay.



Fig. 1. Rolling the Clay Coil

The slab method. As mentioned above, either round or square forms may be built with clay slabs. Box construction is most often used, but sheets of clay lend themselves to curved forms as well. (See Fig. 5).

The basic building procedure is as follows:

1. Throw chunks of the wedged clay down hard onto a cloth spread over the bench top between two wooden slats. Select slats of equal thickness. Be sure also that they are thick enough so that there will be allowance in the clay sheet for the inevitable shrinkage.
2. Roll out with large dowel or rolling pin (Fig. 2) taking care that no air pockets are allowed to remain in the slab. These appear as little bumps over the surface and may be pricked and filled with tiny wads of clay. Also, roll the dowel in more than one direction so as to avoid stretching the clay.
3. Lay the pattern on the clay sheet and cut the pieces, using a knife or a thin-bladed wooden tool held at right angles so that the clay edges will be square, not sloping (Fig. 4).

Flat and shallow forms may be accomplished readily with slabs. Cut a sheet of clay into a leaf



Fig. 2. Using the Template in Coil Building

pattern, border it with a half-inch wall, bring the veining into relief with a few well placed clay strips to make an hors d'oeuvre dish.

. . . . . .

A sheet of clay cut into a wide based triangle, its two sloping sides brought together over a support of crushed newspaper makes a very satisfactory wall-pocket. The seam may be accented with a clay ruffle, or buttoned up with blossoms made of clay bits rolled and then flattened in the palm and pinched into petals.

II. THERAPEUTIC APPLICATION

Physical disabilities. Hand-building as a modality for patients with nerve involvement was given favorable consideration by Lester A. Mount., M.D., of the Department of Neuro-Surgery of the College of Physicians and Surgeons and The Neurological Institute of New York. In an address read before the 1948 Convention of the American Occupational Therapy Association, he discussed the use of several crafts, among them clay molding, in treating various involvements. In damage to the radial nerve

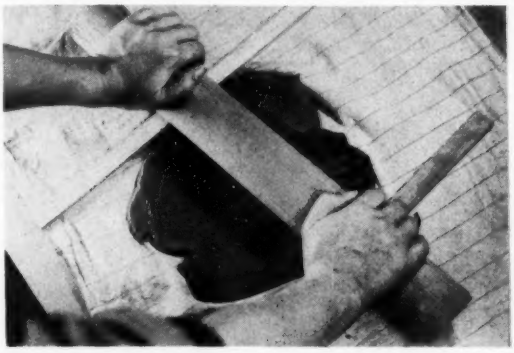


Fig. 3. Rolling the Clay Slab

> *When some contractures have taken place and no muscle power has yet returned passive stretching may be achieved as in molding . . . to stretch the flexor digitorum profundis and the flexor digitorum sublimis.*[10]

Pressing the clay into a tile frame with the involved fingers of a clawed hand, or with the thumb, was found effective in cases of this kind at the San Francisco Veterans Hospital.

Coil rolling was also used for this injury but to bring the extensor muscles of the hand into play. A coil was constructed of sufficient diameter to hold the patient's hand clear of the table. Firm clay was used. When the rolling was done with the palms there was a positive contraction of the extensors in an effort to keep the fingers elevated. (Wadsworth Veterans Hospital). In another case at this same hospital a patient with weak finger extensors was encouraged to use the coil method to construct a tall jar. As the wall rose, greater effort at finger extension became necessary so that he could place his involved hand inside the form to smooth the coils.

Lester Mount recommends the early use of ceramics for injuries both of the ulnar and the median nerves, even though the disability be marked "both in the motor and sensory spheres."[11] At the New



Fig. 4. Using the Paper Pattern

York State Rehabilitation Hospital, the building process was used for exercise of the upper extremity and particularly for pre-operative and post-operative opponens pollicis.[12]

Dorothy Sammons, O.T.R., writes:

Ulnar deviation and flexion deformities of the fingers are frequent occurences in the arthritis patient. These may be corrected to some extent by rolling a piece of modeling clay on a table top, taking care to keep the hand in the proper position and the proximal joints as nearly extended as possible.[13]

. . . . . .

Simple tiles were found to be absorbing for children confined to bed with rheumatic fever (Los Angeles General Hospital). Small slab and coil bowls and dishes were part of the early phases of a work tolerance program for the tuberculous patient. Grading the activity was accomplished by limiting not only the size of project but the amount of working time (San Fernando Sanatorium).

. . . . . .

In working with the blind, Lester Matthews, ceramist and volunteer artist for the Braille Institute of America, found it necessary sometimes to start the piece, especially for new patients, but discovered that they soon showed awareness of position and dimension and were able to build successfully. One device which proved reassuring was to supply the patient with a cardboard tube about six inches in diameter. A sheet of clay wrapped about this form, flush at one end where the base was to be attached, but extending irregularly beyond the upper end, produced a vase of regular proportions, yet allowed the patient an opportunity for free expression with part of it. This he could flute or slope or curl to suit his fancy, without any feeling of loss of security in accomplishing the major form.

Mental involvement. In the Veterans Administration Neuropsychiatric Hospital, Sawtelle, California, an entire Occupational Therapy Clinic is devoted to ceramics. The majority of patients receiving treatment here are suicidal. The fact that clay construction can be done without need for sharp or pointed tools has recommended it highly in this situation.

. . . . . .

When electro-shock therapy was in progress the patient's ability to remember ideas and instruction from one day to the next was reduced. Very simple projects in pottery which could be completed, ready for drying, within the hour, proved most valuable (VA Sawtelle, Pasadena Sanitarium, Langley-Porter, VA Palo Alto). A slab ash tray, pressed into a plaster mold, or walled with a single coil; a wall pocket, a small jar for matches fashioned of a strap and a circle of clay; these and many other simple forms lent themselves to quick and successful accomplishment, so important to the development of a feeling of security within the mental patient.

The building process in ceramics offers a rather



Fig. 5. Slab Building

wide treatment range since pieces may be intricately done, demanding the close attention of the depressed patient; or they may be simple, quickly finished, satisfying the excited patient.[14] When once their interest in the project was aroused, it could be extended from one treatment period to another by starting them on "sets" of things; cups and saucers, mugs, smoking accessories, dressing table items, etc. The method of building was left to the patient since some found the use of coils ready to their hands, while others were more attracted by the carpentry-like techniques of slab construction.

* * * * *

Conclusions

A study of this type does not, perhaps, lend itself to conclusions of the traditional sort. In general, however, it can be said that the results of the research supported the writer's original premise: that a need exists for teaching devices which will integrate more closely the material from those two major fields upon which occupational therapy draws—art and science. The student, encountering both craft study and occupational therapy theory for the first time, may be expected to experience some difficulty in translating craft knowledge into therapeutic techniques. Two points seem to bear upon this phase of the learning process:

1. Ceramics, like many of the crafts, is taught by artists who have no background in the treatment implications of their subject.
2. The theory of occupational therapy incorporates, into lecture form, discussion and analysis of many different crafts, and, removed as it must necessarily be from the clinic, cannot include actual demonstration of craft application.

The entire study is, of course, inept and fruitless unless it can be used. It may be that the teaching of an art subject, whether or not by a registered therapist, will permit little, if any, class instruction of therapeutic application. If, however, the students are offered an opportunity, through reading such a handbook as this, to consider the treatment aspect at the same time that they are learning the individual art processes, occupational therapy theory may perhaps be made more meaningful to them. It is not proposed that there be assignments or examinations on the material dealing with treatment usage. It is felt, rather, that the collection, in each chapter, of selected clinical material will serve to stimulate the students to think of ceramics in terms of its therapeutic as well as its art value; that such an approach to learning will demonstrate its real importance when, later, they use ceramics with greater assurance as a treatment modality.

BIBLIOGRAPHY

2. Helen S. Willard and Clare S. Spackman, *Principles of Occupational Therapy*. (Philadelphia: J. B. Lippincott Company, 1947), p. 46.
3. George J. Cox, *Pottery for Artists, Craftsmen and Teachers*, (New York: The MacMillian Company, 1930), p. 172.
4. Henry and Denise Wren, *Pottery: The Finger-built Methods*. (London: Sir Isaac Pitman and Sons, Ltd., 1932), p. v.
5. *Manual of Occupational Therapy*, p. 6.
6. M. L. Franciscus, O.T.R, "O.T.: Where? How? Why?" *Occupational Therapy and Rehabilitation*, 25:140, August, 1946.
7. Irwin Friedman, "Art in Occupational Therapy," (a mimeographed outline for the therapist in the neuropsychiatric field, printed at Brentwood, the Veteran's Administration Neuropsychiatric Hospital, Sawtelle, California, 1948), p. 1.
8. Edmund deForest Curtis, *Pottery, Its Craftsmanship and Its Appreciation*. (New York: Harper and Brothers, 1940), p. 21.
9. Curtis, *op. cit.*, p. 18.
10. Lester Adran Mount, M. D., "Peripheral Nerve Injuries Amenable to Occupational Therapy," *American Journal of Occupational Therapy*, 2:330, 1948.
11. *Loc. cit.*
12. Viola W. Svensson, "Occupational Therapy on an Orthopedic-medical Basis," *American Journal of Occupational Therapy*, 2:356, 1948.
13. Dorothy D. Sammons, O.T.R., "Arthritis," *Occupational Therapy and Rehabilitation*, 2:20, February, 1945.

SELECTED BIBLIOGRAPHY

Ceramics Literature

Binns, Charles F., *The Potter's Craft*. New York: D. Van Nostrand Company, Inc., 3rd Edition, 1947. 128 pp.

*Cox, George James, *Pottery for Artists, Craftsmen and Teachers*. New York: the Macmillian Company, 1930. 200 pp.

*Curtis, Edmund deForest, *Pottery, Its Craftsmanship and Its Appreciation*. New York: Harper and Brothers, 1940. 100 pp.

Duncan, Julia Hamlin, and Victor D'Amico, *How To Make Pottery and Ceramic Sculpture*. New York: Simon Schuster Publishing Company, 1947. 95 pp.

Kenny, J. and B., *The Complete Book of Pottery*. New York: Greenberg Publishers, 1949. 500 pp. (approx.)

Knapp, Harriet E.,*Design Approach to Crafts*. Sandusky, Ohio: Prang Company, Publisher, 1945. 138 pp.

Leach, Bernard, *The Potter's Book*. New York: Transatlantic Arts, Inc., 1946. Revised Edition, 294 pp.

Petterson, Richard, *Illustrated Modern Crafts, Tools, and Methods*. Los Angeles: Copyright by the author, 1945, 45 pp.

Randall, Ruth H., *Ceramic Sculpture*. New York: Watson-Guptill Publications, Inc., 1948. 95 pp.

Snively, R. D. and M. E., *Pottery*. Brattleboro, Vermont: Stephen Daye Press, 1940, 86 pp.

Wren, Henry and Denise, *Handcraft Pottery for Workshop and School*. London: New York: Sir I. Pitman and Sons, Ltd., 1928. 162 pp.

*Wren, Henry and Denise, *Pottery: The Finger-built Methods*. London: Sir I. Pitman and Sons, Limited, 1932. 110 pp.

Literature Containing Therapeutic Application

Axline, Virginia, *Play Therapy, the Inner Dynamics of Childhood*. New York: Houghton Mifflin Company, 1947. 379 pp.

Bunnell, Sterling, M. D., *Surgery of the Hand*. Philadelphia: Lippincott Company, 1940. 734 pp.

de Groot, John K. B., "Sculpture as an Aid to Therapy," "*Occupational Therapy and Rehabilitation*, 25:247-256, 1940.

(*Continued on Page* 280)

A SUGGESTED TREATMENT IN OCCUPATIONAL THERAPY FOR PATIENTS WITH MULTIPLE SCLEROSIS

ELIZABETH W. WHITAKER, O.T.R.*

With recognition of the advisability of rehabilitation for the injured veteran, there has come a realization of the possibilities of, and need for rehabilitation of chronic neurological patients, including those with multiple sclerosis. The Kabat-Kaiser Institutes have been leaders in developing a program for self-care training and symptomatic treatment of these patients. The Veterans Administration and other groups have also developed programs, but with a different approach to exercise. The Kabat approach, [1,2] being based on established neurological principles, uses exercise with resistance in developing residual neuromuscular pathways. The treatment was carried out by a therapeutic team with the occupational therapists one of the components. While occupational therapy was employed for its exercise value, insufficient recognition was taken of its value as an incentive for exercise. Proper attention to incentive leads to a more adequate mental and physical response.

While a complete study of the role of occupational therapy in the treatment of the multiple sclerosis patient (including reading literature and making visits), was attempted, the main consideration of this paper will be a project carried out by the writer, presenting the application of selected crafts in neuromuscular re-education.

This paper will contain a brief description of the illness, consideration of the occupational therapy approach and craft application. The crafts were applied in the treatment of patients at the Kabat-Kaiser Institute in Santa Monica, which is under the direction of O. Leonard Huddleston, M.D. Assistance was given by Jean A. Ayres, O.T.R., head of the occupational therapy department.

Multiple sclerosis is described as a degenerative disease of the central or peripheral nervous system, either acute or chronic in form, and characterized microscopically by disseminated plaques of demylination. There was an estimated 250,000 cases in this country in 1949 and its incidence was on the upsurge.[3] In a review of the first two hundred cases interviewed at the Kabat-Kaiser Institute in Washington, onset occurred in over half of the cases between the ages of twenty-five and thirty-five.[4] Prognosis was fair and in general the duration of illness was five to twenty-five years, with death following not from the illness but a concurrent disease.[5] Although numerous theories as to the cause of illness exist, none had been proven by 1949. The disease had affected any part of the neuraxis from the brain through the cord, but in general the cortex was spared. The areas most frequently involved were the thalamus, medulla, optic nerves, cerebellum and regions of the spinal cord, particularly the thoracic and lumbar. Euphoria resulted from lesions in the thalamus. Astereognosis, an inability to recognize form by touch, resulted from lesions in the association tract. Involvement of the pyramidal tract lead to symptoms of weakness and paralysis. Hemiplegia resulted from plaques in the projection tracts. Historically, cerebellar lesions were the first recognized and lead to Charcot's triad consisting of: nystagmus, an oscillation of the eyes; intention tremor, an involuntary tremor of the trunk, neck or extremities which increased as movement approached completion and delicate adjustment was needed; and scanning speech (Nielson[6] felt that scanning speech was rare compared to a hesitant jerky speech with explosive utterance). While Charcot's triad is still recognized, it is seen only late in the disease. Optical difficulties were common and included double vision, retrobulbar neuritis, reduction of the visual field and a great sensitivity to light appearing in late stages. Possibly the most striking combination of symptoms were those of locomotion, with a spastic paresis of one or more extremities combined with a sensory ataxia of the limbs which may be increased by intention tremor and incoordination of movement. Bizarre symptoms were more frequent and remissions more likely when the onset occurred in the twenties. When the patients were in their forties at the time of onset, the illness had a slow progressive course with more localized symptoms and a tendency to retrobulbar neuritis and euphoria.[7] While Langworthy[8] suggests psychotherapy, symptomatic treatment as practiced at the Kabat-Kaiser Institutes is most frequently advocated today.

In visiting the Institutes, the writer felt that there was too little regard for the psychological response of the patient to his therapy. The incentive aspect of the occupational therapy program

* Miss Whitaker's article is an abstract of a paper presented to the Department of Occupational Therapy, University of Southern California, in partial fulfillment of the requirements for a Master's degree.

was neglected. Because of the chronic character of this illness and the duration of treatment, the therapist should plan treatment that arouses the patient's interest and stimulates his desire for exercise. The activity should have an emotional appeal as well as fulfilling an exercise need for a patient. The program should be planned so that it can be continued in the home over a long period, with a minimum of supervision. If possible the home treatment should have an economic value or at least appeal to an avocational interest. Occupational therapy should assist in the patient's adjustment to a chronic disease,[10] relieve emotional tension and combat the patient's lack of confidence by demonstrating to him his ability to perform activity.[11]



Fig. 1. Resistance Gloves

The exercise value of occupational therapy should be for strengthening muscles, developing endurance, preventing atrophy of disuse and establishing correct patterns of movement. To strengthen a muscle and build the muscle body, De Lorme[9] has found activity involving the use of heavy resistance preferable to low resistance with high repetition; for the latter increased endurance rather than power. Fatigue resulted from the repetitions rather than from the resistance. Kabat felt that without resistance the entire muscle body was not stimulated, and that resistance must be employed to activate both the primary and secondary nerve pathways to the muscle. This stimulation by voluntary action activates more muscle fibers and assists in establishing supplementary pathways to the muscle. Intention tremor was controlled by the use of resistance since voluntary power usually greatly exceeds the power of the tremor pattern.[12] Voluntary action of the weak muscle in spasticity was stimulated by reinforcement techniques including use of reflex patterns and bilateral motion. With the application of these and other reinforcements, the nerve impulses were built up and a new pathway established breaking through the stretch reflex. Physical therapy should be used to establish function and occupational therapy to develop practical abilities and good patterns of motion.

Due to the newness of the neuromuscular approach to re-education of muscles practiced by Kabat, and due to the limited use of crafts as a treatment modality, the writer made a special study of this phase of the treatment. The purpose of the study was to: 1) apply selected crafts chosen for their value in prolonged treatment, adaptability to changing conditions and applicability to a home treatment program; and 2) by this procedure to determine the validity of the use of crafts as a functional treatment in neuromuscular re-education and as a stimulus to exercise. Functional treatment stressed pattern development and provided exercise for strength, coordination and endurance of muscles. Selection of patients was made by the director of the occupational therapy department in concurrence with the writer. The prescription was studied and a craft selected. Adaptations of method and tools were made at the beginning of treatment and changed as usage warranted. Initial tests were made of the patients ability to perform those skills which had been prescribed for his particular need, such as writing, endurance and coordination. The patient worked on the craft for part of the treatment period with the resistance glove (Fig. 1) and other activity being used to supplement treatment. The tests were repeated at appropriate intervals and used as criteria for judging the value of the craft.



Fig. 2. Clamp of Household Tongs Made to Hold Carving Tool

Leather carving was tried with a young flier having weakness and slight intention tremor in his hands. His prescription was for coordination and endurance with particular reference to the writing pattern. Simulated carving was done with only a modeling, beveling and background tool. A clamp for the tool was made by tying sponge rubber to the grippers of a household tong (Fig. 2) and attaching clothes pins to the handles to enlarge the grip. This provided a gross pattern for early training, preventing overflow to that hand and protecting the hand from inaccurate blows.

The work was done over a magazine to eliminate excess noise. The patient worked a simple repeat pattern which he was able to trace and carve without assistance. He worked for about 15 minutes daily, and required two months to complete the belt. At first, a light rawhide mallet with one and three-quarters inch face was utilized; but as control was gained, it was exchanged for a light metal hammer with a three-quarters inch face. The patient was stimulated by the craft and his progress was good. His writing was tested for four minutes, and increased in one month from 28 to 41 words, an improvement of 46 per cent. (See Fig. 3 and 4).

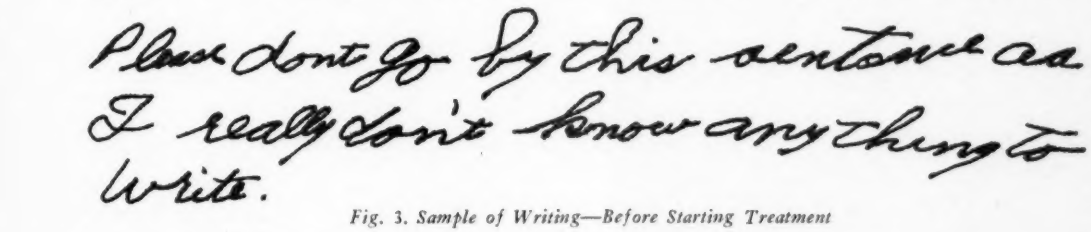


Fig. 3. Sample of Writing—Before Starting Treatment

Weaving on a floor loom was tried with a chronic patient who had lost her enthusiasm for exercise. Weakness with some incoordination and easy fatiguability were her greatest problems. The loom was used because of its easy adaptability to provide active resistive exercise for flexion and extension of the arms. It also provides good pattern variety for patient interest. Rags used for the weft were cut and spliced by the patient, providing finer movements. The patient was released from the hospital after only two weeks of treatment. This patient was tested placing pegs in small holes. The time required for the left hand decreased from 3 minutes and 50 seconds to 1 minute and 50 seconds, an improvement of 48 per cent. The right hand decreased only 13 per cent but it took comparatively little time on the first test. The patient had complained at the start of pain in her shoulders, and this she felt had almost disappeared.

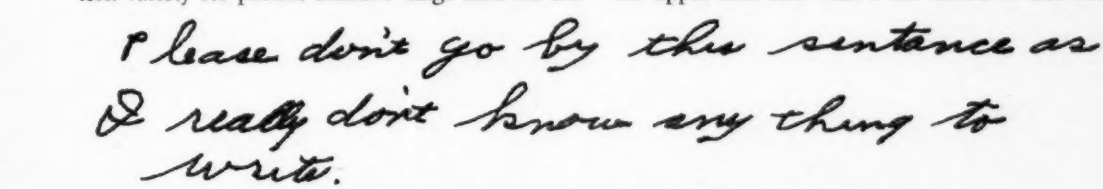


Fig. 4. Sample of Writing—After One Month of Treatment

Weaving on a weave-it frame was used with another chronic patient for its value in improving intention tremor control and for endurance in the writing pattern. The patient wound and wove one square per day. Gross tremor was noticed at first, but decreased during weaving of the square. The patient was tested tracing a pattern on graph paper. In one month, the patient improved 29 per cent in her speed of tracing five per inch squares and 31 per cent in tracing 10 per inch squares. It was felt that the greater speed indicated better coordination and would lead to increased endurance.

Free painting with tempera poster color was tested for its value in improving the writing pattern. Since resistance was needed for intention tremor control, a cuff was devised for the upper arm which allowed for the expansion and contraction of the upper arm, while providing a base for attachment of a piece of rubber dental dam, extending from the cuff to a wrist band. The rubber provided resistance to elbow extension. The rubber attached to the wrist band at the base of the thumb also resisted supination. The cuff for the upper arm was devised by Ronald Beals, formerly of the occupational therapy staff at the Kabat-Kaiser Institute at Vallejo. It consisted of a four inch piece of leather long enough to fit around the upper arm and with a tab added to one end. The tab was run through a slot in the other end of the cuff and the rubber attached to it. With one patient additional resistance had to be added to hand flexion and a band was placed around the palm of the hand and rubber run from the base of the thumb to the middle of the dorsum of the hand. (See Fig. 5). No rule could be followed in applying the resistance but the amount and location depended on the individual patient. This type of resistance allowed for free mobility of the patient's arm or even of the patient himself. The first patient was stimulated by the painting and her writing pattern improved although she credited blood irradiation treatment which she was taking at the same time. Figure 6-9 shows a sample of her writing before starting blood irradiation and two weeks after starting painting for a period of one month. The second patient liked this type



Fig. 5. Additional Resistance Utilized.

of resistance, but was not interested in painting. He felt that it did not constitute treatment and failed to give it a fair trial. A third patient with an intention tremor of the right hand was assigned painting for increase in coordination of the right hand. No resistance was added. The patient was taught to paint in a relaxed manner using fine lines in a parge pattern. The patient was able to write for just three minutes before treatment and after one month wrote for five minutes and could have written longer. Tracings made on graph paper indicated improved control and speed.

From these tests, it was felt that crafts had been successfully applied in all but one case, and had provided stimulation for the patients. Since these patients were also taking other treatments, no control was possible and it can not be proven that the crafts caused the improvement. However, it can be stated that improvement was shown during the period that the patients practiced crafts. The results indicate that the writing pattern can be improved without actual writing practice, which tends to tense the patient and bore him. The most valuable use of crafts proved to be in pattern development, with an improvement of strength and coordination in patients who had established or maintained a fair pattern of movement. Further study needs to be made of crafts that require a minimum of strength for patients with severe incoordination and weakness.

The results of this entire study indicate that occupational therapy in the treatment of multiple sclerosis was being successfully applied in the Veterans Administration and Kabat-Kaiser programs, but that the role needed expansion, particularly in the use of crafts for functional treatment. Interest in the activity and its outcome leads to a stronger muscular response and a stronger impetus to do the activity. Recreation as well as crafts may be utilized therapeutically and psychologically. Crafts were found applicable to the Kabat theory in developing patterns, providing a maximum resistance which might be gradually decreased and reinforcing motor innervation by use of bilateral or diagonal patterns.

The role of occupational therapy can be adapted to fit various approaches to muscle re-education and the role is one of physical, social and psychological significance.

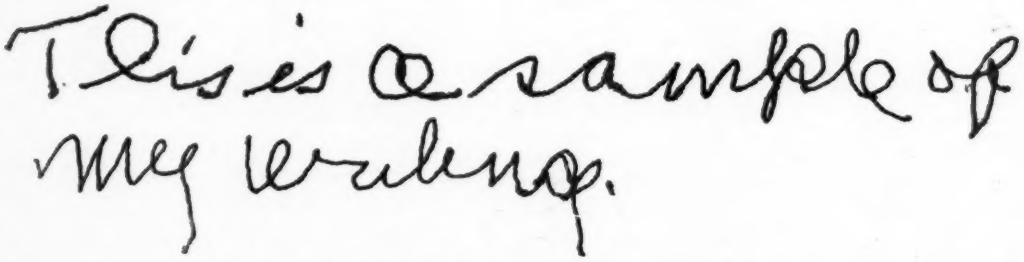


Fig. 6. With No Resistance Added—Two Weeks Before Treatment

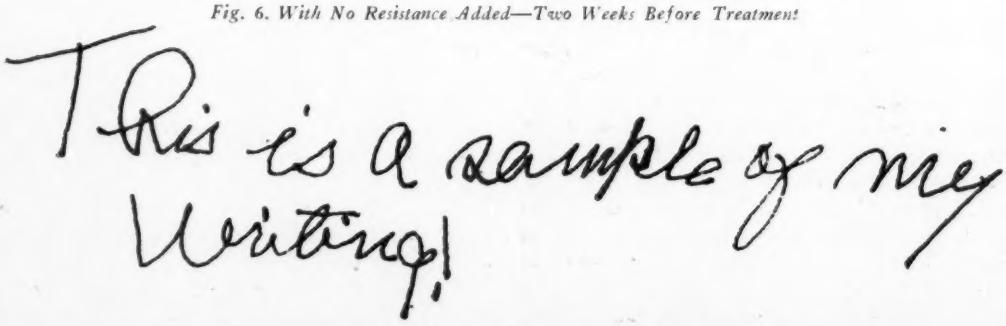


Fig. 7. Resistance Added to Forearm Extension and Wrist Flexion



Fig. 8. Resistance Added to Forearm Extension

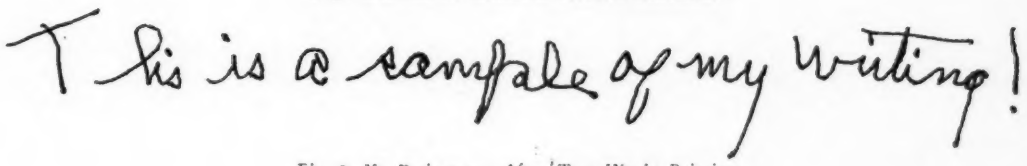


Fig. 9. No Resistance—After Two Weeks Painting

REFERENCES

1. Kabat, Herman, "Studies on Neuromuscular Dysfunction, XI, New Principles of Neuromuscular Reeducation," *Permanente Foundation Medical Bulletin*, 5:111-123, November, 1947.
2. Kabat, Herman, "Studies on Neuromuscular Dysfunction, XIII, New Concepts and Techniques of Neuromuscular Reeducation for Paralysis," *Permanente Foundation Medical Bulletin*, 8:121-143 (1950) July.
3. Putnam, Tracy J., "Multiple Sclerosis," *Crippled Child*, 27:7-8, June, 1949.
4. Cailliet, Rene, "The Rehabilitation Treatment of Multiple Sclerosis and Its Rationale," *Occupational Therapy and Rehabilitation*, 29:1-11, February, 1950.
5. Alpers, Bernard J., *Clinical Neurology*, (Philadelphia: F. A. Davis Company, 1947), 797 pp.
6. Nielson, J. M., "Multiple Sclerosis," *Clinics*, 4:416-447, August, 1945.
7. McAlpine, Douglas, "The Problems of Disseminated Sclerosis," *Brain*, 69:233-250, December, 1948.
8. Langworthy, O. R., "Relation of Personality Problems to Onset and Progress of Multiple Sclerosis," *Archives of Neurology and Psychiatry*, 59:13-14, January, 1948.
9. DeLorme, Thomas L., "Heavy Resistance Exercise," *Archives of Physical Medicine*, 27:607-630, October, 1946.
10. Watkins, Arthur L., "Physical Medicine and Neurology," *Clinics*, 4:1486-1515, April 1946.
11. Willard, Helen S. and Clare S. Spackman, editors, "*Principles of Occupational Therapy*, (Philadelphia, J. B. Lippincott Company, 1947), 416 pp.
12. Kabat, Herman and Dorothy Rosenberg, "Concepts and Techniques of Occupational Therapy for Neuromuscular Disorders," *American Journal of Occupational Therapy*, 4:6-11, February, 1950.

* * * *

"Community Action for the Aging", a brief and simple guide to help volunteer and professional groups develop local programs, has been recently published by N. Y. State Assn. of Councils of Social Agencies.

The booklet sets forth organizational and procedural steps to help the community combat "the enemies of the aging, economic insecurity, loneliness and a feeling of usefulness."

To secure a copy send 20 cents to the State Assn. of Councils, 105 E. 22nd St., N. Y. City.

* * * *

A manual of Cerebral Palsy Equipment published by the National Society for Crippled Children and Adults is now available. The Manual is loose-leaf, has 268 pages with 266 illustrations, and features a subject index, bibliography and list of commercial firms. Distributed through the Illinois Society for Crippled Children and Adults. Inc., 11 South LaSalle St., Chicago 3, Ill. Price: $3.75.

* * * *

Miss Naida Ackley, O.T.R., was appointed chairman of the Legislative and Civil Service Committee upon the resignation of Miss Elizabeth Messick, O.T.R. Miss Josephine Davis, O.T.R., was appointed chairman of the Permanent Convention Committee upon the resignation of Mrs. Lucie Spence Murphy, O.T.R.

* * * *

New Fellows of the Association elected by the Board of Management at the annual convention in October are:

Raymond B. Allen, M.D., Seattle, Washington
F. H. Arestad, M.D., Chicago, Illinois
Karl M. Bowman, M.D., San Francisco, Calif.
Sterling Bunnell, M.D., San Francisco, Calif.
A. B. C. Knudson, M.D., Washington, D. C.
H. H. Kessler, M.D., West Orange, New Jersey
Sidney Licht, M.D., Boston, Massachusetts
Donald L. Rose, M.D., Kansas City, Kansas

PRIZE WINNING THESIS

THE EMOTIONAL PROBLEMS OF BEHAVIOR IN THE SPASTIC, ATHETOID AND ATAXIC TYPE OF CEREBRAL PALSY CHILD

PEGGY DERSE
Milwaukee-Downer College

In the past a great deal of emphasis has been placed on the emotional problems of the normal child. In comparison, comparatively little or no attention has been given to similar problems of the child afflicted with "Cerebral Palsy". It is the purpose of this paper to bring these emotional difficulties of the "Cerebral Palsy" child to the foreground, and to describe the role the occupational therapist can play in aiding the child to adjust to his varied emotional disturbances.

Definition of Cerebral Palsy

Doctor Meyer Perlstein defines cerebral palsy as a "condition characterized by paralysis, incoordination, or any other aberration of motor function due to pathology in the motor control centers of the brain."

Incidence of Cerebral Palsy

According to the findings of Doctor Winthrop Phelps, there are seven cases of cerebral palsy for every 100,000 population per year.[1] Of these seven, one dies before he reaches 6 years, due primarily to respiratory disorders and nutritional deficiencies. Two of the seven are definitely feebleminded and require custodial care. The four remaining are of normal intelligence. One child is so severely physically handicapped that he is either institutionalized or homebound. Two children are moderately handicapped and need some special training. The fourth child has such minor physical handicaps that he is able to attend a regular school.

In a recent house to house canvass made by the New York State Health Department, it was found that there were 152 cases of varying degrees of cerebral palsy per every 100,000 population in New York State. The survey uncovered many undiagnosed and untreated cases which may indicate that cerebral palsy is still regarded as a condition of which to be ashamed and, therefore, hidden.

Cerebral palsy is more common among premature than full term babies. It is prominent in first-born children, in heavy-weight births with prolonged labor, in children born to older women, and affects particularly the male sex. It has a predisposition for the white race. In the black race the newborn child is smaller at birth than the white, and there is a lower incidence of the Rh negative factor—thus minimizing the risk of cerebral palsy in the colored child.

Causes of Cerebral Palsy

Cerebral palsy occurs during the prenatal, natal, or postnatal period. The prenatal causes are either hereditary or congenital in nature. Rudimentary pyramidal tracts, developmental defects in the basal nuclei and its tracts, defects in the cerebellum and its tracts, and metabolic anomalies are all considered as familial causes of cerebral palsy.[2] Anoxia, cerebral hemorrhage, infection, metabolic disturbances, malnutrition, and the Rh factor all affect the fetal brain and may produce a congenitally acquired cerebral palsy. Anoxia, vascular damage, and trauma are the common natal factors. A mechanical blockage of the respiratory tract, collapsed lungs, depression of the fetal respiratory center in the medulla by narcotic drugs administered to the mother, breech birth, kinking or pinching of the umbilical cord during the birth process, and severe anemia in the child or mother may all be causes for fetal asphyxia. Trauma and mechanical injury to the skull and brain, sudden pressure changes, fragile blood vessels in the premature child, and lack of vitamin K in the blood are factors which may cause damage to the brain during the birth process, resulting in cerebral palsy. Any factor affecting the brain during the postnatal period such as trauma, infection, neoplasms, drugs, vascular disturbance, and anoxia may cause cerebral palsy.

Types of Cerebral Palsy

The location of the lesion in the brain determines the resultant type of cerebral palsy. An injury to the basal ganglia results "athetosis". (40-60% of all cerebral palsy children are the athetoid type.) This condition is characterized by a series of involuntary motions which occur without definite pattern. They are variable in degree and

selection of muscles, sometimes involving the joint, all the extremities, or the cranial nerves enervating the eyes, tongue and facial muscles. There is pathological overflow, athetoid speech, hearing defects, and reversed breathing. The reflexes and mentality are usually normal. It must be remembered that the athetoid is not aware of his unconscious movements.

Injury to area four results in flaccid zero cerebral muscles and spasticity. Injury to area six results in spasticity, hypercontractability, and hypersensitivity to stimuli, which are the typical characteristics of the "spastic" type of cerebral palsy. In this condition the muscle contracts 100% to any stimuli because the pyramidal tracts regulating response are damaged. There is increased muscle tone, increased stretch reflex, clonus, reversed breathing and pathological overflow. Deformities may result from bones growing faster than tendons or abnormal contractions. The mentality of the spastic child is often affected, since the site of the injury is so near the intellectual centers. There may be eye defects as well as hearing difficulties. Approximately 40% of all cerebral palsy individuals are the spastic type.

Injury to the cerebellum results in "ataxia". This is a disturbance in the balance and postural or directional sense. There is no interference with motion either by spasticity or other involuntary motions. It is characterized by a reeling, drunken, unsteady gait, an inability to perform rapidly alternating movements or to estimate the range of voluntary movements, a lack of check reflex, explosive, slurred speech, feelings of dizziness and lightheadedness, ocular ataxia, jerky and broken voluntary movements, coarse intention tremors, and floppiness of limbs. There is a decreased resistance to passive movements because of diminished muscle tone, and a tendency to lean and fall to the side of the lesion. The reflexes are diminished but no pthological overflow is present. Ataxia is present in about 5-10% of all cerebral palsy cases.

The Cerebral Palsy Personality

At one time it was claimed by Watson that the cerebral palsy child had a typical personality which was very clearly defined in all cases of similar diagnosis. This assertion is no longer considered valid since each child is believed to be an individual with a personality all unto his own. Some authorities believe that each type of cerebral palsy has similar character or personality traits in common. It has been reported by Doctor Winthrop Phelps in his studies of the cerebral palsy child that the "spastic" child is usually an introvert while the "athetoid" is an extrovert. The "ataxic" child is neither definitely an introvert nor an extrovert. He is considered normal in his association with people.

In considering three personality aspects of the cerebral palsy child—namely love, fear, and anger —it is discovered that each classification of cerebral palsy has similar characteristics. The spastic child does not like demonstrations of affection. Fondling and embracing sets off the stretch reflex causing vigorous muscle spasm. This spasm is an unpleasant experience associated with dissatisfaction in mind. He shows affection only when he is seeking protection and security. The spastic becomes discouraged by the constant restraint of affected muscles. He may develop a phlegmatic attitude and become quite morose. His anger is not easily aroused, but if he does become perturbed at a situation, his anger wears off rapidly. The spastic child is filled with fears to the point where they limit his activities. When he loses his balance, he tries to save himself, such action causing the stretch reflex to make him rigid. Since he is unable to break his fall, he is often hurt. Eventually he associates the contraction of muscles with being hurt, and things causing the stretch reflex produce the same fear as falling. Loud noises, loss of support, meeting strangers, and any unusual situations, cause violent contractions. The spastic is afraid of being misunderstood in actions and words, of not making a good impression, of being considered repulsive, grotesque, and of being shunned. He lives in an aura of fear which contributes to the development of his extremely introverted tendencies. He has no desire to make any effort toward trying anything new for fear of the consequences. He is also regarded as lacking in judgment, reasoning, and abstract thinking.[3]

In contrast the "athetoid" child is very affectionate and desires as much attention as he can obtain. He enjoys being fondled and caressed. He is openly friendly, unworried, and does not care what others think about himself or his handicap. The "athetoid" shows a great deal of rage or anger which is of short duration. Occasionally he experiences success in an attempted motion. If this same motion is attempted repeatedly and involuntary movement steers his efforts elsewhere, he suddenly becomes angry because of frustration. This child has strong dislikes. He makes friends very easily, enters into many activities, has a cheerful disposition, and is usually well liked. Fear is not developed to the extent that it is found in the spastic. Since the athetoid child rarely is hurt on falling, he does not associate this fear of muscle spasm with unpleasant experiences. He lacks confidence because he is always in motion, and cannot be sure that he can accomplish a desired act.

The "ataxic" child is comparatively normal as

far as anger and fear are concerned. Anything involving shifts in position such as rocking, tossing, or other affectionate gestures on the part of his parents, disturbs his equilibrium and thereby increases his dizziness painfully.

Emotional Maladjustments and Problems of the Cerebral Palsy Child

Doctor Earl Carlson has said "most of the Cerebral Palsies have emotional problems and a frustrated attitude". To further support this idea, Doctor Henry Marsh has said "The Cerebral Palsy patients are, as a group, prone to psychiatric difficulties of varying magnitude and are emotionally more unstable than the normal child".[4] When the cerebral palsy child was met in a testing situation, Lillian G. Portenier declared, "Aside from physical defects, one of the major problems encountered on the testing as well as in the training program was emotional immaturity".[5] When considering the cerebral palsy child as part of the handicapped group, Doctor Howard Rusk claimed that since they were members of a minority group and subject to the same economic and social pressures as other minority groups, they developed the same emotional outlooks as those discriminated against because of age, sex, religion or race.[6]

When the basic human emotional needs are not met in the cerebral palsy child, personality and behavior problems may result. To belong, to achieve, to be free from fear, to love and be loved, to have a feeling of economic security, to be free from intense feelings of guilt, to share in decision making, to understand the world,[7] and to have a feeling of personal worth are the fundamental emotional needs which cannot possibly be filled in every case of cerebral palsy. Dr. Phelps found that personality and behavior problems occurred more frequently in children of normal or above average mentality, and less frequently in the feebleminded. The mental capacities or extent of involvement may limit fulfillment. The mentally deficient child is apt to be rejected as a result of maladjustment on the part of his family. The normal individual may have the mentality to originate a plan but not the physical capacity to carry it out.[8] Parents have a tendency to encourage their children to compensate for their disability by forcing intellectual attainment. They enter their children in school at an early age and force promotion. In cases where the child does not measure up to standards, he becomes frustrated at the prospect of disappointing his parents and himself. Often a feeling of inferiority develops, especially after continued unsuccessful competition with normal children. He has a knowledge that he is different, and is self-conscious of being exhibited in front of others. The cerebral palsy child is apprehensive, lonely, and feels displaced in a group. He is denied the necessary contact with the opposite sex so that marriage chances are reduced.

Physical limitations further complicate the child's emotional life. Lord claims that the more serious the limitation, the fewer overt manifestations of emotional problems.[9] However, the handicapped child who is completely dependent on his mother for care, is apt to be a domestic tyrant. He doesn't develop emotional control when he feels or knows that a few uncontrolled screams bring assistance. He has practically full control of the situation through complete domination of his parents. He is satisfied if made physically comfortable. Usually his interest is not easily sustained and is rapidly diverted by motions and sounds. The attention span in the child with disordered movements is short since the extra movements he makes exhausts his concentrating powers. Extraneous movements and their accompanying proprioceptive sensations dampen his initiative and distract his attention.[10] The variety and degree of motor limitation prevents the child from receiving normal sensory stimuli, so that an entirely different psychological setup from the normal develops. Muscular movements of cerebral palsy are closely interwoven with emotions. In a new situation, muscle control is at its worst due to eagerness for success. When ideas fail to gain motor expression a mental tension develops.

The slightly handicapped child has personality difficulties based on self consciousness and a feeling of inadequacy arising out of unsuccessful competition. He is keenly conscious of his handicap and withdraws from any suggestion of the limelight. Emotionally these children exhibit various symptoms of dependence, irritability, distractibility, lack of initiative, indulgence in fantasy, negativistic behavior such as stubbornness, with temper tantrums and various other evidences of egocentricity.[11] They suffer from disorganized thoughts and emotions. There are more sensory stimuli than they can adequately care for. In the morning it has been found that they have more difficulty in feeding themselves and their attention span is shorter. This is reflected in purposeless motor activity which grows less as the child gets into the routine of the day's play or work and sensory stimuli lessen. As the cerebral palsy child grows older, training becomes less effective. At this time he is apt to develop a morbid attitude toward his handicap when he finds that it stands in the way of meeting some of the challenges of adolescence.

In addition to the various emotional problems created by the physical and mental condition of the cerebral palsy child, the attitude and actions of the parents are of considerable importance in

contributing to further maladjustment. In some instances the child was never wanted. Believing that a defective child is just retribution for such sinful ideas, the parents assume an oversolicitous attitude toward the child in an effort to relieve their feelings of guilt. They literally become slaves to his every whim. This overindulgence, over-protection and over-pampering stifles the child's emotional development. The parents make him infantile since they are afraid they may harm him or make him uncomfortable. The child rarely develops independence and initiative.

It is believed that the father is prone to reject his child unconsciously. He feels it an insult to his ego to have produced a defective child. This feeling of rejection is directly transmitted to the child, as are all parental attitudes and emotions. Some parents never look at their child's problem realistically. They run from one doctor to another in the hope of being told that their child will walk and be normal. They reject painful ideas and cling to whatever they can interpret as encouraging in the outlook. They have a confused impression of their child's limitations, either expecting too much or too little of him. They never have a true understanding of their child's diagnosis. Often the mother becomes emotionally irritable and impatient because of accumulated tensions and fatigue. The child also develops these emotional tensions resulting in feeding and toilet problems. Other mothers are over-solicitous, indulgent, make unnecessary allowances and yield to emotional pressures, adding further complications to an already serious problem. If there are siblings in a family the parents are so busy attending to the wishes of the cerebral palsy child that they neglect the others. This abnormal family situation, where there is a lack of give and take, contributes to further spoiling the handicapped individual. This situation is particularly serious for siblings if the affected is feebleminded. Thus it can be seen how both the parents and child are responsible for his emotional maladjustment. It has been said that the emotional patterns are the product of growth, but their use is determined by how they are educated or trained. Education can help in preventing many of these emotional problems. The occupational therapist can contribute immeasurably toward this education by working with both the child and the parents.

The Function of Occupational Therapy in the Treatment of Cerebral Palsy

Occupational therapy must be considered as part of a total treatment plan for the cerebral palsy child. In the Phelps Clinic there are five different modalities of treatment:

1. Voluntary relaxation
2. Basic Therapies—Physical, Occupational and Speech Therapy
3. Braces and appliances
4. Surgery
5. Drugs

Other cerebral palsy clinics are similar in treatment to the Phelps Clinic. The basic goal of each method of treatment, whether it be Phelps, Kabot Kaiser, Temple Fay, or Deavers, is to help the cerebral palsy child both mentally and physically to adjust to his condition and the world about him. Since this paper is concerned primarily with the role the occupational therapist can play in this treatment, none of the other modalities will be discussed.

Through the use of self-motivated activity, the occupational therapist helps the patient develop skills and abilities which will provide him with a more satisfying way of life. Through the creation of normal or real situations, she also provides an opportunity for the patient to put into use in a practical way the skills developed by the physical therapist, speech therapist, school teacher, as well as herself. It is the job of the occupational therapist to help the child attain normal developmental levels—mentally, emotionally, and physically.[12]

The therapist can play an important role in the special education that the cerebral palsy child requires. This education implies purposeful stimulation. Appropriate stimuli will bring forth the desired response. Repeated responses become habits and it is the habits which determine the physical progress, character, and personality of the cerebral palsy individual. "The more intelligent the child, the more experiences he will have to call upon to hold back the factors of fear, self consciousness, and anxiety that play an important role in the control of muscular activity."[13] Specifically speaking, the occupational therapist can encourage the child to read in an effort to increase his fund of knowledge. The child must be taught to "read to learn".[14] Reading enables the cerebral palsy to direct his thoughts to ideas that control the emotional factors interfering with muscle control. Motor expression is necessary in reading and the retention longer as a result of it. Education teaches the child how to adjust to his handicap and how to meet the conditions of life with it. Education will reduce the gap between the child's chronological age and his developmental stage; between his chronological age and his educational achievement; between his chronological age and mental age.[15]

The occupational therapist can be of aid in resolving his emotional problems. Meeting the fear needs of the cerebral palsy child is probably

one of the greatest roles the therapist can play.

The child can be encouraged to look his best at all times, to be well groomed, and to wear suitable and well cared for clothes. If the child is socially acceptable in appearance and actions, he is not so apt to be rejected by others. He must be taught to be tolerant of the curiosity of other people, forgiving of their rebuffs, and must contribute something to social intercourse in order to receive something in return. He must be taught to put other people at ease about his handicap. He should talk freely and without embarrassment about it.[16] When a child goes into a new situation, he should be encouraged to stop and look things over. He should try to fix his attention on one particular object if his thoughts are flitting wildly. If he feels awkward and out of place, he should anchor himself to a sturdy chair.[17] The child should breathe slowly, regularly, and without rushing. He should consciously direct his attention away from himself toward the results his words are accomplishing, thus lessening tension and improving his speech.[18] Speech training is essential with the cerebral palsy child since it is necessary for mental development. It helps overcome stage fright and helps the individual to acquire the ability to direct thoughts to the topic of conversation.

The cerebral palsy individual should be encouraged to seek opportunities to meet people and practice self confidence. It is necessary that he establish himself socially, to take part in activities, and be part of the gang. If at all possible he should try to mix in a society other than that composed of cerebral palsies.[19] In a church situation the contacts are more apt to treat the child as a fairly normal being. As soon as he is able to associate and compete with normal children, the sooner will he be able to free himself of feelings of insecurity engendered by over-protection. If the difference between the cerebral palsy and the other children in the group is minimized, the cerebral palsy child is more apt to be accepted and develop some self esteem. The child should be impressed with the fact that all people have some short-comings, either more or less obvious than his. It is only an exaggerated sense of egotism on his part that makes him think every one is interested in him and staring at him, when in reality they are interested only in themselves. If the child is able to develop a sense of humor, his chances of being accepted by the group are greater. The factors of fear and self consciousness must be diverted to pleasureable stimuli before the learning process can adequately proceed.

The child must be taught to face his handicap realistically and accept it as part of the equipment with which he has to meet life. He must free his heart of envy of normal people and concentrate on conquering himself.[20] He must learn to be optimistic and take disappointment. The child must be motivated to interest and activity. His future must be planned within the limitations of his handicap and the most made of his abilities. These limitations and abilities can be determined by the occupational therapist through performance.

Independence can be developed if the child is given the opportunity and encouragement to do things by himself. This is a gradual development as the child is started with doing minor and insignificant tasks and working up to the major ones.

The occupational therapist can be particularly important in teaching the child a respect for discipline. He must be taught to do things because they are right to do in spite of his difficulties. Harsh discipline is not the answer to curing a spoiled cerebral palsy child but rather training and understanding.

Helping the parents to understand their child's condition and their own feelings about the situation may relieve many of the emotional tensions which are retarding the child's development. The occupational therapist can help the family adjust to the patient's problems and to encourage their cooperation in order that treatment aims may be continued in the home. Understanding the condition will reduce friction between parents, siblings, and the child to a minimum. It is necessary that the child have a stable place as a member of the family. He should have an opportunity to take equal share in all family privileges and responsibilities, doing things for others, learning the value of money, having an allowance, and he should develop a sense of responsibility. As near normal a family life should be created as possible. There should be a minimum of discussion about the child's condition. The therapist should warn the parents not to expect more than the child is mentally capable of, but rather to make demands based on total capacities, I.Q., aptitudes, and interests. The parents can prevent infantilism by inspiring their child with a "will to do" drive. They can establish work habits and enhance constructive interests.

For short periods of time it is sometimes advisable to institutionalize cerebral palsy children for intensive treatment periods. At this time the occupational therapist can play her greatest role. She considers this child first as a child, then as a handicapped child, and finally as a cerebral palsy child. She looks beyond the handicap and sees what is left; then concentrates on what is left. She stresses the good points of the patient and what he has rather than what he lacks. The occupational therapist works with the child and not on him. She urges him to exert the best effort that

he is capable of. The therapist knows what the child should be required to do regardless of his limitations.

Adaptive Equipment

In an ideal clinical situation there is certain adaptive equipment. The standing table is particularly important in neck and leg strengthening, head balance, preventing deformities, and developing a kinanesthetic sense. If the standing compartment has screen sides, the position of the child can be seen at a glance. Foot blocks help in adjusting him to the height of the table. The standing table can be utilized as a sand box, painting or drawing board, or toy table. With several other children at a table, the child learns cooperation. Cut-out tables have also been found to be extremely helpful in keeping the child in a sitting position. In this table the child fits up against a half circle area cut out of the edge of the table surface. His elbows are directly on the table top which eliminates the pull of gravity on the arms and facilitates easier use of them. Special chairs are other vital equipment. These chairs are adapted to fit the size and disability of the child. They may be painted different colors to indicate size and should have foot supports so that the child is sitting firmly in the chair with his feet supported. There may be side boards to keep the child firmly in place so he does not slide from one side to another. Rubber pads on the seats also prevent slipping. This chair aids in strengthening the neck and trunk. To eliminate wheel chairs it is possible to take a regular chair with rollers and fit it with side supports and a foot rest so that the severely handicapped child can fit in it securely. It is psychologically good for a child to sit in a near normal type of chair if he has previously known only wheel chairs. Special "Baby-Tendas" have been produced for cerebral palsy children.

Reciprocation skiis for training in total body balance are helpful preparatory to teaching walking. Lead pipe walkers which would weight the patient down are sometimes advised but only if the child is never expected to walk without them. Chain driven bicycles without a middle bar (which might cause brace tangling) are recommended since they offer more hip resistance. Adaptive toys are other pieces of valuable equipment. Puzzles fitting into a frame are easily handled. Heavily stuffed baseballs will provide the child with balls which he is able to handle. Eating boards, Montessori boards, and lacing shoes with long tongues and double colors are helpful in teaching the daily living skills. The self-help boards and processes learned are transferred to usual everyday objects. It is the opinion of this writer that every type of adaptive equipment should be used in an effort to hasten the learning of everyday activities so that the child is performing them at the near normal developmental age. It is important that the child start with adaptive equipment so that he learns the gross motion rather than to begin with normal equipment which he may be unable to handle.

Treatment Objectives

The occupational therapist has definite objectives in the muscle re-education program with each type of cerebral palsy. In working with the spastic child, stabilization of the feet and shoulders is important. He should be sitting well back in his chair, back straight, and knees apart. His hand dominance must be determined early in treatment. He should be trained in primary motor patterns and reciprocation. The spastic muscles should be taught to voluntarily relax at the stimuli that would ordinarily cause them to contract. The weakened antagonist should be exercised so as to slowly rule out the stretch reflex. A balance of power should be obtained between the spastic muscle and its antagonist. Most all extraneous movement can be ruled out through the use of sand-bags, binders, straps and braces. Automatic motion in zero cerebral muscles can be produced by training in confusion. It must be remembered that it takes three weeks for a confusion to bring an impulse to an OC muscle. The occupational therapist also strives to improve both fine and gross coordination. These muscular objectives are accomplished through daily individual exercise with slow rhythmic motion until repetition forces it to become a habit.

In working with the ataxic child the occupational therapist utilizes placement exercises with hand to eye coordination. She trains the child to control the direction of the force of motion, and to think about each motion he makes. She must teach the child to substitute cortical or voluntary control for the destroyed automatic balance and sense of joint posture. He must orient himself in space by use of sight and other sensations. Through repetition of exercises and activities, coordination will become automatic.

The athetoid child must be taught maintenance of relaxation of athetosis throughout willed motion. He must be trained in conscious control from a position of relaxation. If there is too much overflow upon an attempted activity, the patient must relax and go back to a position of rest. The occupational therapist teaches the child relaxation of tension and then relaxation of athetosis. Doctor Phelps claims that the athetoid should be taught to use only those muscles necessary to maintain him. The therapist must work from the proximal to the distal extremities. She must try to train the

child in purposeful active motion without interference of athetosis.

The occupational therapist is usually called upon to provide a specific training program to develop self-help skills and independence in feeding, dressing, and other skills required in daily living. By making the child an independent being, many emotional tensions are resolved.

Feeding Training

Feeding the seriously handicapped child presents a major problem to parents and therapists. The child is unable to relax his body, lips, tongue or throat muscles while being fed. It is necessary that the feeder gain the confidence of the child. She should become acquainted with him, talking steadily and telling him silly things even though he doesn't listen or understand. She should have a light pleasant tone, not one of grim determination. She should be sure to tell him that she would like to help him at mealtime. There are a few tricks which the therapist might utilize to make feeding easier. A nap or quiet time before the meal relaxes the child so that the tensions are lessened. If the child has to be held, a comfortable position is necessary. The neck and head of the child should be supported by the therapist's shoulder with her left hand holding the child's hands on her knees. A position of deep flexion prevents stiffening out. Everything should be ready at feeding time. The tray should be out of kicking reach. There should be adequate napkins, food, cup, mirror and bright, cheerful dishes. Plenty of time should be allowed for eating with all movements slow, smooth and easy. If the child stiffens as the food approaches, it should be presented again. Involuntary swallowing should be praised and voluntary swallowing induced by lightly stroking the side of the Adams apple. A mirror is a helpful device for showing the child his tongue. As soon as possible the child should drink from a cup. He should be taught not to throw his head back or down but rather take one sip and swallow. Solids should be inserted to the side of his mouth so he has to bite in the inside of his mouth without protruding his tongue. The child should be encouraged to eat by himself as soon as he is able. The therapist should expect that he will be as messy in eating alone as any normal child would be on first attempt. If it is easier for him to use a built up spoon, she should provide it. Feeding boards are helpful in that they prevent the dishes from falling. Setting the dishes in plasticine or sticking rubber pads on the bottoms also prevents overturning. Glasses should be filled only halfway and spilling of milk regarded lightly. Since feeding is a learning situation, it is not a good idea to have the child eat at a family meal since that is not a training situation. When the child has sufficiently mastered the art of eating, he should join the family group.

Personal Self Care

In order that the child might better care for himself, certain little helpful hints might be used to facilitate the performance of everyday living tasks. Soap on a string and toothbrush on an elastic will prevent them from falling on the floor. To make dressing easier, buttons sewed securely but not too close to the material, hooks, eyes and zippers used wherever possible, extra long shoe laces, and large buttonholes will reduce the amount of coordination necessary to complete dressing.

Writing Training

Many times the occupational therapist is called upon to teach the child to write. Like all other skilled activities, writing starts with a very simple process and works up to a more difficult one. The child must be in a proper position with the therapist on the dominant side. He must be told to "rent" his arm and hand so he can't use it. While supporting the elbow and wrist, the child should make large circular motions to slow record music. Sand bags at his feet will induce relaxation. The overflow in the non-dominant hand will be reduced through relaxation as will the protruding tongue and facial grimacing. If he pays attention to the music, it will release some of the attention he gives to his arm. The next step preparatory to writing is the making of circular movements of the shoulder and elbow on the table with a piece of built up doweling. Using jumbo hexagonal crayons on wallpaper, newspaper, or wrapping paper is the next process learned. The making of bird's nests in columns, single circles, and finally progressive circles are the order of increasing skill mastered. Perfection should not be emphasized but rather praise and guidance. When a soft pencil is first used, the paper should be anchored with thumb tacks. As the child progresses, the tacks can be removed. The child should advance from words to short sentences, from pencil with a grip to a pencil without one and finally to a pen. Printing is very difficult for the cerebral palsy child as it involves separate motions for each letter. Writing is one continuous motion and is, therefore, easier. When the child is old enough, he should be taught to type as soon as possible.[21]

It is possible for the occupational therapist to start working with the cerebral palsy child as soon as he is able to sit up, usually six to seven months.[22] She makes an effort to keep the child as closely as possible to his chronological age of development in his daily routine activities and interests. Since the child's natural media of expression is in

the area of play, all his activities will be in that realm. One of the more noble contributions of the occupational therapist is that she teaches the child to play. By the time the child is 21 months old she has taught him to string large wooden beads using the hand not used because of weakness and lack of control. Through the use of brightly colored objects such as cubes, small cars, educational toys, wooden blocks, rings, tinker toys, she is beginning a long-time play program which will aid in the development and normalization of the child's attention span.

Through careful observation and recording, the therapist is able to determine the hand dominance of the child if there is a problem in this area. Behavior problems often disappear when handedness is established.[23] Rhythm games, finger plays, rhythm bands, rhythm ball bouncing to develop balance, coordination of hands, and proper timing of motor response, checkers, dominoes and carron are all games that the handicapped child can enjoy in a group situation. Since every child needs "to get dirty" the occupational therapist provides sand, clay, or fingerpainting to satisfy this need. If finger paints are considered too messy, cold cream on black oil cloth will serve the purpose. Dirt play is especially essential in a hospital situation where everything is sterile and abnormally clean. Playing with balloons provides good reaching exercise. Jingle and jump toys at eye level provide incentive for good head position. If the toys are on a table at all times, independent play and arm use are encouraged. In a group situation the child can be taught to share in the games of others, realize that he can't play everything, thus spoiling the play of others. He should be taught to look for and engage in less active, related games.

In an effort to improve specific muscle power and coordination, the occupational therapist uses play activities and crafts to accomplish this end. The activity the therapist chooses for treatment is determined by the physician's diagnosis plus the needs of the child.[24] Weaving and work on the bicycle saw strengthen the muscles of hip extension. Knee extension is accomplished through weaving, tricycle riding, and kicking a ball tied to a string from a sitting position. Dorsi flexion of the ankle is gained through working a sewing machine, kicking a ball up, climbing a walking ladder, and pumping a bicycle saw in reverse. Rolling a ball between the legs, teeter-totter, tricycle and heaping sand between legs are good activities for hip abduction. General leg coordination is improved by weaving, shuffle board, marching, and use of the bicycle saw. The following activities improve the following action:

Grasp—clay work, filing, squeezing a ball.

Finger extension—sand box play, flicking a ping-pong ball, patty cake.

Opposition of the thumb and forefingers—lacing shoes, stringing beads, crayoning, penciling, hanging clothes pins on a line, playing with small blocks and tinker toys.

Shoulder abduction and extension—hitting a balloon upward, overhead bean bag toss, combing hair, drawing on a side wall blackboard and pulling light cords.

Elbow extension—piling blocks, crayoning on an easel, planing, basketry, hammer and nails, and throwing and catching a large ball.

Forearm supination—screwing toys and woodwork, bean bag toss, ring the hook, shoveling sand, and "button, button".

General arm co-ordination—group rhythms, puzzles, writing, and basketry.

In any of these activities completion of a project is not important. The interest of the patient, the adjustment and the motions involved are the important factors. The therapist concentrates on how the patient performs an act. These newly acquired skills are carried over into everyday activities in the form of consciously acquired habits. The prime requisite in this habit training is that the therapist start with the child young enough so that she is doing a job of education rather than re-education.

SUMMARY

It has been the intention of the author to present a descriptive picture of the emotional and physical life of the cerebral palsy child. Much emphasis has been placed on the personality and behavior problems resulting from emotional tensions which contribute to the child's maladjustment. It is evident that the emotional and physical aspects of life are so inter-related that "If, in occupational therapy, the child learns increased use of the hands, all other bodily functions will progress, such as speech, leg use, and educability".[4] The neurological reorganization necessarily involved in learning is so closely integrated that improvement as a whole results from any one improvement in function. Improvement in one developmental area contributes to improvement in other areas. Improvement in physical abilities relieves emotional tensions in the maladjusted child.

To educate both parents and child in an understanding of his condition and to establish and maintain a complete program of muscle strengthening and improved coordination is the role of the occupational therapist, a contribution which enhances immeasurably the life of the cerebrly palsy child.

BIBLIOGRAPHY

1. Winthrop M. Phelps, M.D., *The Farthest Corner*, (Illinois, 1943), pp. 8-9.
2. Meyer A Perlstein, M.D. "Medical Aspects of Cere-

bral Palsy" *American Journal of Occupational Therapy*, Vol. IV. No. 2, March, April, 1950, 47-52.
3. Melba M. Miller, "Special Education for the Cerebral Palsy Child", *Crippled Child*, October 1947.
4. Henry O. Marsh, M.D., "Assembling Forces for the Cerebral Palsy Child", *American Journal of Occupational Therapy*, Vol. IV, No. 2, (1950), p. 56.
5. Lillian G. Portenier, "Psychological Factors in Testing and Training the Cerebral Palsy", *Physiotherapy Review*, XXII, No. 2, (1942).
6. Howard A. Rusk, M.D., "But The Spirit Giveth Life", *Survey*, (April, 1949).
7. William Cruickshank, "Emotional Needs of Crippled and Non-Crippled Children", *Journal of Exceptional Children, XVI*, No. 2 (November, 1949).
8. Elizabeth Evans Lord, *Children Handicapped by Cerebral Palsy*, (New York, 1937).
9. Ibid.
10. Arnold Gesell, M.D., *Developmental Diagnosis*. (New York, 1947), p. 219.
11. Winthrop M. Phelps, M.D., "Report on a Study of 200 Cerebral Palsy Cases", *Annual Report for* 1946. (Chicago, 1946).
12. From notes taken while at the Riley Cerebral Palsy Clinic, Indianapolis, Indiana.
13. Earl R. Carlson, M.D., "Give Them Education", *Crippled Child*, (April, 1947).
14. Ibid.
15. Melba M. Miller, "Special Education for the Cerebral Palsy Child", *Crippled Child*, (October, 1947).
16. Leslie M. Hohman, M.D. "Help the Cerebral Palsy Grow Up", *Crippled Child*, (April, 1947).
17. Viola E. Cardwell, R.N., *Cerebral Palsy Child and His Care in the Home.* (New York, 1947).
18. Ruth Clonick, "I Met the Challenge of Cerebral Palsy", *Crippled Child*, (October, 1947).
19. Irvin F. Hummon, M.D., "Outlook for the Cerebral Palsy Child", *Crippled Child*, (December, 1946).
20. Ione Alen Foster, "How to Cope with the Teen-Age Problem", *Crippled Child.* (December, 1948).
21. M. S. Rood, "*Writing Training for Cerebral Palsy Patients*" (Indiana, 1941).
22. Elizabeth Grayson, O.T.R., "Occupational Therapy for the Cerebral Palsy Child", *American Journal of Occupational Therapy*, IV, No. 2, (March, April, 1950), p. 64.
23. "Report on the Study of 200 Cases of Cerebral Palsy", *Annual Report of the Society for Crippled Children in the District of Columbia for* 1946.
24. Marguerite Abbott, "Present Day Trends in Cerebral Palsy", *American Journal of Occupational Therapy*, IV, No. 2, (March, April, 1950), p. 53.

ADDITIONAL BIBLIOGRAPHY

Books

1. Carlson, Earl R., *Born That Way*, New York, John Day Co., 1941, 175 p.
2. Gesell, Arnold, *Developmental Diagnosis*, New York, Paul B. Hoeber, Inc., 1947, 496 p.
3. Lord, Elizabeth E., *Children Handicapped by Cerebral Palsy*, New York, Commonwealth Fund, 1937, 105 p.
4. Wells, J. M., *Survey of Psychological Examination of* 400 *Cerebral Children* (thesis) Indianapolis, 1942.

Pamphlets

1. Cardwell, Viola E., "Cerebral Palsy Child and His Care In the Home", New York, Ass'n. for Aid of Crippled Children, 1947.
2. District of Columbia Society for Crippled Children, Washington, D. C., "Report on a Study of 200 Cerebral Palsy Cases", 1946 Annual Report.
3. Hutchinson, Esther, "Handbook on Physical Therapy for Cerebral Palsy", Columbus, Ohio, Ohio Society for Crippled Children, Inc., 1946. 45 p.
4. Martz, Carl D., "Medical Aspects of Cerebral Palsy", Indianpolis, Indiana, Indiana State Department of Public Welfare, December, 1947.
5. McGarrett, Adelaide L., "An Outline on Cerebral Palsy", Indianapois, Indiana, Indiana State Department of Public Welfare, 1944, 13 p.
6. National Society for Crippled Children and Adults. "A Selective Bibliography on Cerebral Palsy"; Chicago., The Society, 1949.
7. Phelps, Winthrop M., "The Farthest Corner". Chicago, National Society for Crippled Children and Adults, Inc., 1943. 23 p.
8. Ravenstine, Mildred, "Psychological Examination of Cerebral Palsied". Indianapolis, Indiana, Indiana State Department of Public Welfare, 1944.
9. Riley Hospital, "Cerebral Palsy Outline", Indianapolis, Indiana. Indiana State Department of Public Welfare, 1946. 8 p.
10. Rood, M. S., "Writing Training for Cerebral Palsy Patients", Indianapolis, Indiana. Indiana State Department of Public Welfare, 1941.
11. Ross, Alexander, "Psychological Handicaps of Cerebral Palsy Children", Indianpolis, Indiana. Indiana State Department of Public Welfare, 1947.
12. Stevens, Hazel, "School Readiness", Indiana. Indiana University Quartery Bulletin, 1948.

Periodical Articles

1. Abbott, Marguerite, "Present Day Trends in Cerebral Palsy". *American Journal of Occupational Therapy*, March-April, 1950.
2. Ayrault, Evelyn West, "Personality Growth Development of Cerebral Palsy". *Crippled Child.* April, 1947.
3. Carlson, Earl R., "Give Them Education". *Crippled Child.* April, 1947.
4. Clonick, Ruth, "I Met the Challenge of Cerebral Palsy", *Cripped Child*, October 1947.
5. Deaver, George G., "Clinical Aspects of Cerebral Palsy". *Crippled Child.*
6. Foster, Ione Allen, "How to Cope With Teen Age Problems". *Crippled Child*, December, 1948.
7. Grayson, Elizabeth, "Occupational Therapy for the Cerebral Palsy Child". *American Journal of Occupational Therapy.* March-April, 1950.
8. Hohman, Leslie B., "Help the Cerebral Palsy Grow Up". *Crippled Child*, April 1947.
9. Hohman, Leslie B., "Emotional Training Paves the Road to Independence". *Crippled Child*, August, 1948.
10. Humon, Irvin F. Jr., "Outlook for the Cerebral Palsy Child". *Crippled Child*, December, 1946.
11. Jones, Margaret, "Cerebral Palsy Problems As Seen At the Southern California Cerebral Palsy Clinic". *American Journal of Mental Deficiency*, January, 1949.
12. Livingston, Dorothy, "Achievement Recording for the Cerebral Palsied". *American Journal of Occupational Therapy*, March-April, 1950.
13. Marsh, Henry O., "Assembling Forces for the Cerebral Palsy Child". *American Journal of Occupational Therapy*, March-April, 1950.
14. Martz, Carl, "Cerebral Palsy". *Journal of Indiana State Medical Association.* February, 1948.
15. Maurer, Katherine M., "Mental Measurement of Children Handicapped by Cerebral Palsy". *Physiotherapy Review.* September-October, 1940.
16. Miller, Melba M., "Special Education for the Cerebral Palsy Child". *Crippled Child.* October, 1947.
17. McIntire, J. Thomas, "Incidence of Feeblemindedness in Cerebral Palsy". *American Journal of Mental Deficiencies.* April, 1946.
18. McIntire, J. Thomas, "Study of the Distribution of Physical Handicap and Mental Diagnosis in Cerebral

(*Continued on Page* 280)

DAILY ACTIVITY INVENTORY AND PROGRESS RECORD FOR THOSE WITH ATYPICAL MOVEMENT[1]

MARY ELEANOR BROWN, M.A.,
PHYSICAL THERAPIST

Director, Cerebral Palsy and Rehabilitation Services,
Eastern New York Orthopedic Hospital-School, Inc.,
Schenectady, New York.

PART II

Table of Contents

ANALYSIS OF DAILY ACTIVITIES 261
All Activities 261
Starting Position 261
Instructions to Subject 262
Groups of Activities 262
Bed Activities (2-9) 262
Explanation to Examiner 262
Starting Position 262
Starting and Finishing Side-Lying Positions 262
Instructions to Subject for Moving into Side-Lying Positions 263
Need 263
Satisfactory Performance 263
Equipment 263
Toilet, Bathing and Grooming and Undressing Activities (13-26, 50-54, 90-94) 263-264
Explanation to Examiner 264
Need 264
Satisfactory Performance 264
Dressing and Undressing and Appliance Activities (23, 26, 62-65) 265-272
Bladder Apparatus 266
Wheelchair Activities 271-272
Explanation to Examiner 272
Equipment 272
Single Activities (1-100) 264

ANALYSIS OF DAILY ACTIVITIES

Each of the one hundred daily activities has been analyzed in order to recommend the most efficient inventory procedure and insure uniform results. The following headings are used unless the information thereunder is obvious in which case they are omitted: Explanation to Examiner, Starting Position, Instructions to Subject, Need, Satisfactory Performance and Equipment. Analysis information has been grouped for a number of items to save repetition. The headings are, "All Activities," "Groups of Activities," "Single Activities[2] (1-100)".

All Activities

Starting Position: The subject may be helped or placed into the initial starting position of any activity (1) if he cannot assume it independently, (2) if it would take him too long to arrive there by himself, (3) if by so doing he were to exhaust himself and spoil his chances of completing the inventory. However, this is arbitrary, as some subjects are too heavy to be placed in positions, or it may consume too much time to do so. There are some activities such as getting out of a bathtub, getting up from the floor, coming downstairs, which might occasion an impossible amount of lifting on the part of the examiner in order to place the subject in the starting position. If this cannot be done practicably, the examiner is justified in leaving the activities blank for future teaching and checking.

All starting and finishing positions should be acceptably good from the standpoint of posture within the limitations of the subject's disabilities. If a sitting position is the starting or finishing one, the subject should be sitting as well as is possible with a minimum of strain, with braces unlocked unless directed otherwise and feet properly placed.

The starting position as listed under each activity analysis should be assumed. The subject does not hold onto or even touch objects other than those indicated. He observes the instructions of the examiner, and only proceeds to perform an activity at the indication of the examiner.

The subject may choose the starting position when it is not indicated. Since the subject may be placed in a starting position, he may be helped to a sitting or standing position as the case may be. However, when coming to a sitting or standing position is an inherent part of an activity, as is the case in the lying-to-sitting, standing-to-sitting and sitting-to-standing activities, no aid is given. The subject should not be placed in a sitting position and laid down or aided in so doing once an activity has been started. When the subject needs to be placed in a starting position of his choosing, it is wise to indicate this in the performance notes column, inasmuch as it may be necessary information for those who will expect him to perform the activity on the ward or at home. An example of this is putting on clothing. The subject may choose an initial sitting position, yet may not be able to assume it. Unless a note is entered to this effect, he may be expected to

1. Part II of a three installment article, the first section appeared in the Sept.-Oct. issue, 1950 and the last section will appear in the Jan.-Feb. issue, 1951.

dress himself and fail because he cannot come to a sitting position by himself.

If appliances are considered necessary for the subject and practical for the activity, they may be worn, unless otherwise indicated in the separate activity analyses. When there is a doubt, it is best to consult the physician to make sure the subject can do no harm by attempting activities without the use of appliances. Of course, the more he can do without the appliances the better, provided no harm is suffered. When appliances are used for activities and this appears unusual, notes may be added to the record.

A subject who has achieved daily activities using crutches and who has had canes prescribed should be checked on the activities with the canes. Similarly, one who has performed activities satisfactorily on canes and for whom the prescription is to discard the canes, should be checked without canes. The same precaution would hold for the one who is to learn to do without a brace or other appliance. Notes may be used to keep track of these special conditions.

Instructions to Subject: In the matter of methods of imparting instructions to the subject, two types of activities within the one hundred-item list need to be considered: the ninety-two which are actual activities and the remaining eight, which, because they are difficult if not impossible to check in actuality, constitute going through the motions of the activities.

In the first group, it is preferable not to demonstrate the activity to the subject unless other methods fail. Starting positions, verbal instructions to the subject, the need for performing the activity, and descriptions of satisfactory performances, are indicated in the activity analyses. If the subject does not understand what is expected of him after all the information has been offered to him, a demonstration of starting and finishing positions is advised. Precaution should be taken not to require, indicate or teach a particular method of arriving at the finishing position.

An example of when it was necessary to resort to frequent demonstration was in the case of a deaf cerebral palsied child who could not read, write or read lips. For instance, when floor to standing was to be checked a quick demonstration inspired an equally fast performance by the subject, and there was a minimal chance that teaching a method entered into the performance.

In the second group, satisfactory performance of the desired motions by the subject can often be better elicited with a clear demonstration. Furthermore, the methods of performing such motions are somewhat uniform so that the element of teaching the subject is relatively unimportant. Demonstrations are, therefore, urged for these eight items. (For further discussion of these, see previous issue, Page 198).

To summarize, the aim is to ascertain the subject's present ability to perform activities. Inasmuch as every effort needs to be made for him to understand what is desired, demonstration may be necessary, in which case it is used as a means to aid the subject to understand what is expected of him, and not to show him how to do it. It is felt that demonstration should be used only if other methods fail, except in the case of the eight "motion" activities which gain in effectiveness by a full demonstration.

Groups of Activities

Bed Activities (2-9)

Explanation to Examiner: The upper extremity refers to the whole upper appendage comprising arm, forearm and hand. The lower extremity refers to the entire lower appendage comprising thigh, leg and foot. However, since the words "arms" and "legs" commonly designate their respective extremities, they will be used with that meaning here.

No appliances are to be used.

Starting Positions: The first four activities (2-5) are done in a series. The finishing position of one is the starting position for the next. The subject needs space enough to roll from back to right side to abdomen and return. The second four (6-9) are then performed in a series (the finishing position of one being the starting position for the next), and space is required to roll from back to left side to abdomen and return. Therefore, the subject needs space equal to at least three times his width. If the bed is this wide, the middle of the bed is the best starting position for the entire series. If the bed is narrow, then the subject needs to be on the left side of the bed to begin rolling to the right, and on the right side of the bed to begin rolling to the left.

Starting and Finishing Side-Lying Positions: Side-lying, legs downstretched one upon other, underneath arm in front of body, other downstretched along trunk and thigh or placed on bed across front of body bracing it.

Instructions to Subject for Moving into Side-Lying Positions: Turn onto the side, so that the trunk and head are exactly on the side, the legs downstretched one upon the other, the underneath arm in front of the trunk, and the other downstretched along the trunk and thigh or on the bed across the front of the trunk bracing it.

Need: These activities (1) Permit exercise, aid circulation and help prevent pressure sores. (2) Allow new positions for greater comfort. (3) Prepare for washing and massaging entire body. (4) May aid in dressing and undressing (5) Permit

changing bed linen. (6) Make other nursing care easier. (7) May facilitate coming to a sitting position.

Satisfactory Performance: The main purpose of this series of activities is to determine the ability of the subject to change the position of his trunk precisely and at will, since the trunk is the greatest weight and most bulky mass of the body for another person to move. The position of the arms and legs is arbitrary, inasmuch as these may be relatively easily moved by another person. However, positions for the extremities are given in order to clarify the instructions. When the subject moves from his back onto his side, he is to be definitely on his side with regard to his trunk and head. One leg rests upon the other. The underneath arm is out from underneath the trunk and in front of it, the trunk being definitely in a side-lying position as well as the head. The other arm is downstretched along the side of the trunk and thigh or is placed on the bed across the front of the trunk bracing it. Even though this position may not be the most desirable for the one preparing to wash or massage the subject, at least the subject is in a good position for easy handling. For instance, the subject may not be able to bend the underneath leg at the knee in order to facilitate balancing, yet someone else can easily do this once the subject has attained the given position.

If extremities are deformed and cannot take the positions suggested, this does not mean that the subject cannot achieve the bed activities. As has been indicated, if he satisfies the trunk and head conditions, the activities are considered acceptable.

Equipment: 1 bed (with mattress, sheet but no pillow), preferably with a head- and footboard, such as would be found in the average home.

Screens if privacy is needed.

A hospital bed is not to be used for any inventory activities, because the object is to discover the subject's ability to handle daily activities as found at home rather than in a special place such as a hospital.

Teaching Tip. Moving from hospital bed to wheelchair and back and performing other activities involving a hospital bed should be taught when these are necessary daily activities in the life of the subject.

Toilet, Bathing and Grooming and Dressing and Undressing (13-26, 50-54, 90-94)

Explanation to Examiner: It is recommended that the person in charge indicate a procedure for handling these activities. A satisfactory routine has been to have male examiners check men and female examiners, women. Among the above items are those requiring the motions rather than the activities themselves. The reason for this is that the activities themselves take too much time from a checking standpoint. This is especially true of toilet activities, since the bladder and bowels might be empty at the time of checking or the subject unable to function freely. Therefore, the actual function of bladder and bowels, while exceedingly important especially in paralysis, is nevertheless not now considered a part of the inventory program. If while checking such activities the subject desires to evacuate bladder or bowels, this may be done, inasmuch as the completion of such functional acts as these reveal motion difficulties not otherwise suspected.

The motions as listed are among the least objective items, yet it has been found that an indication of their performance or lack of it gives a basis for a teaching program. The actual activities should be checked and taught when necessary. This is particularly important in the case of the cerebral palsied who may go through the motions satisfactorily yet be quite unable to accomplish the actual activities due to difficulties in reaching, grasping and releasing objects. The opposite may be true. A subject may be able to perform some actual activities better than the motions, as objects present weight and resistance and may facilitate direction and completion of purposeful acts. As has been suggested previously, supplementary lists may be made to cover provisions not appearing on the master list. In fact, the basis for a special additional list for cerebral palsied might be one containing all the "motion" activities on the present list.

Need: The need for checking and teaching toilet activities has become evident since workers with the disabled have taken on the job of leading disabled people to their peak of independent accomplishment. An example is the boy in the doctor's office who could not readjust his trousers after an examination. This boy was attending a vocational training school, yet disclosed that he was obliged to ask the elevator man to fasten his trousers for him every time he left the bathroom.

Satisfactory Performance: In checking motions rather than activities, each set of motions is to be thorough enough to convince the examiner that the activity could be done.

The toilet activities performed in the bathroom are to be accomplished without leaning on or support of the toilet paper container or any other part of the bathroom fixtures, except the toilet itself, because these fixtures are not always present and are often not sturdy enough for such use when they are there.

Teaching Tip. Disabled people often can be taught and should be encouraged to take care of toilet activities in a hygienic manner in spite of severe motor handicaps.

Dressing and Undressing and Appliance Activities (23,26, 62-65)

For the sake of clarity, a distinction is made between clothing and appliances. Corsets, girdles, binders and padding sometimes used by those with bladder and bowel difficulties are considered clothing. Braces, artificial limbs and urinal bags are considered appliances.

Bladder Apparatus. Since the management of padding and urinal bags may present checking difficulties, the data are given here, although these activities are not on the present list.

(Applying bladder apparatus.)

Explanation to Examiner: *In the case of a man,* the usual bladder apparatus is a standard rubber urinal bag (with rubber tubing and straps) which is wrapped around the waist and adjusted properly with respect to the urinary system. Urinal bags come in small, medium and large sizes. It is important to choose the size best suited to the disabled person. A well-fitting urinal bag may avoid many distressing accidents. If this activity is new to the examiner, it is suggested that a representative from a urinal bag manufacturer be consulted as to the proper adjustment of the urinal bag. If padding is used, the ability of the subject to manipulate it himself is checked.

Teaching Tip.

In the case of a woman, she should be checked as to her ability to manipulate all protective items customarily used by her in the way of padding, rubber and other panties, panty girdles and the like.

Instructions to Subject: (To a man) Apply the urinal bag to the body in such a way that it is properly adjusted and safe, or adjust all bladder precautionary materials in your customary manner. (To a woman) Adjust all bladder precautionary materials in your customary manner.

Precautions: The urinal bag has many disadvantages, some of which are:

(1) It is never one hundred per cent safe at all times, as it may break or the disabled person may move in a manner so as to cause backflow or leakage to an embarrassing degree.

(2) The rubber may irritate the skin, since it lies against the skin, and thus necessitate the wearing of the bag only at intervals.

(3) If the urinal bag is used for a period of hours, the urine may back up and the disabled person may be drenched resulting in further irritation. In fact, disabled people who wear urinal bags a great deal of the time often suffer from severe sensitivity of the skin and are subject to skin infections.

Need: Among those disabled people who have difficulty with movement there is a group with injured urinary systems resulting in lack of normal control of bladder. There are all variations of this. Medical research is attempting to realize all the potentialities of the injured person. Sometimes bladders can be trained so that they will evacuate only at certain times. However, to date there is no good substitute for a urinal bag when a man wishes to go away from home and cannot count on being in a place where it would be possible to empty his bladder when necessary. Bowel control presents great difficulties which under favorable circumstances can also be alleviated by medication and training.

(Removing bladder apparatus.)

Instructions to Subject: Remove bladder apparatus.

Satisfactory Performance: The urinal bag or padding is completely removed from the body.

Teaching Tip. The subject needs to have instructions in how to keep the urinal bag clean.[12]

Wheelchair Activities (38-59)

Explanation to Examiner: The subject may always brake his wheelchair, if there is a brake on it, or prop the wheels with sandbags provided he does this himself. The stabilization of the wheelchair is not timed, since all wheelchairs should have brakes and it is not considered fair to penalize a subject when there is no brake. A good idea used by a disabled girl is to have a fish-net shopping bag hung over the back of her wheelchair for sandbags. It is within easy reach, and she can have her props at all times.

Because of the weight of braces it is usually harder to perform wheelchair activities with braces on. However, if there are reasons why it is better to have the subject wear them, either because of excessive involuntary motion or as a safety measure against possible fractures, then they should be worn except for the item requiring moving on the floor thirty feet. If they are worn, a comment should go in the notes column of the record.

Raising and lowering footrests are included in any activity which requires them.

Equipment:

1 wheelchair, larger size.

1 wheelchair, smaller size.

Sandbags of different weights and sizes.

If the subject arrives in a wheelchair which is habitually used, this one may be considered satisfactory. However, if the wheelchair does not allow for wheeling by the subject in an acceptable manner, then a satisfactory wheelchair should be provided. If the subject is a child or

small in size, he should be given the smaller wheelchair.

Single Activities (1-100)

1. Speech. (10″)
   Instructions to Subject: Answer the following two questions by talking out loud—
   (1) What is your name?
   (2) Where do you live?
   Need: There are those who have no speech and still can get along by writing down their questions and answers. This is usually inefficient and time-consuming. Although certainly valuable to the speechless person, nevertheless, it would not adequately replace speech. Since this inventory has been devised for those with atypical movement, it is possible that a person with speech difficulty might also have atypical handwriting and be unable to communicate on paper legibly. This is often the case with cerebral palsy, and, in fact, was the plight of a young girl who had worked hard to achieve all her daily activities up to traveling. She had had adequate preparation, and all felt confident that she would complete her inventory. She failed, but not because she could not board the bus, descend from it, walk across a street on a green light, walk to the railroad station, board a train, descend from it and arrive safe and sound at her destination. She failed because she could not make the bus driver understand how far she wanted to go so he could charge her the correct fare and let her off at the proper place, and she cannot write fast or well enough to communicate adequately.
   Satisfactory Performance: The answers are plain enough, so that, in the judgment of the examiner, anyone unfamiliar with speech difficulties could understand them.
2. Back to right side, bed-lying. (20″)
   Starting Position: Back-lying in middle of bed, all extremities downstretched.
   Instructions to Subject: Turn onto the right side.
3. Right side to abdomen, bed-lying. (20″)
   Starting Position: Right side-lying.
   Instructions to Subject: Turn onto the abdomen, so that the arms are out from underneath the trunk and downstretched, and the legs downstretched, crossed or uncrossed. The head may be face-lying or facing to either side.
4. Abdomen to right side, bed-lying. (20″)
   Starting Position: Prone-lying, all extremities downstretched, head face-lying or facing to either side.
   Instructions to Subject: Turn onto the right side.
5. Right side to back, bed-lying. (20″)
   Starting Position: Right side-lying.
   Instructions to Subject: Turn onto the back, all extremities downstretched, the lower crossed or uncrossed.
6. Back to left side, bed-lying. (20″)
   Starting Position: Back-lying in middle of bed, all extremities downstretched.
   Instructions to Subject: Turn onto the left side.
7. Left side to abdomen, bed-lying. (20″)
   Starting Position: Left side-lying.
   Instructions to Subject: Turn onto the abdomen, so that the arms are out from underneath the trunk and downstretched, and the legs downstretched, crossed or uncrossed. The head may be face-lying or facing to either side.
8. Abdomen to left side, bed-lying. (20″)
   Starting Position: Prone-lying, all extremities downstretched, head face-lying or facing to either side.
   Instructions to Subject: Turn onto the left side.
9. Left side to back, bed-lying. (20″)
   Starting Position: Left side-lying.
   Instructions to Subject: Turn onto the back, all extremities downstretched, the lower crossed or uncrossed.
10. Edge to edge, bed. (30″)
    Starting Position: As near to either edge of bed as is possible without danger or fear of falling. The following positions are suggested but not required—
    (1) Back-lying, all extremities downstretched.
    (2) Sitting as well as possible, legs downstretched.
    Instructions to Subject: Move to the other edge of the bed so as to be as near that edge as possible without fear or danger.
    Need:
    (1) It frees one region of the bed for changing drawsheet and making bed either by subject or someone else.
    (2) It permits exercise, aids circulation, helps prevent pressure sores.
    (3) It allows for advancement to edge of bed in preparation for,
        (a) Sitting with feet over edge for balance and circulation exercises.
        (b) Transference activities, such as moving from bed to wheelchair.
    Satisfactory Performance: The subject moves in any fashion he chooses, rolling, assuming a sitting position or manoeuvering himself into a lying position without rolling, just so long as he manages to move from spot to

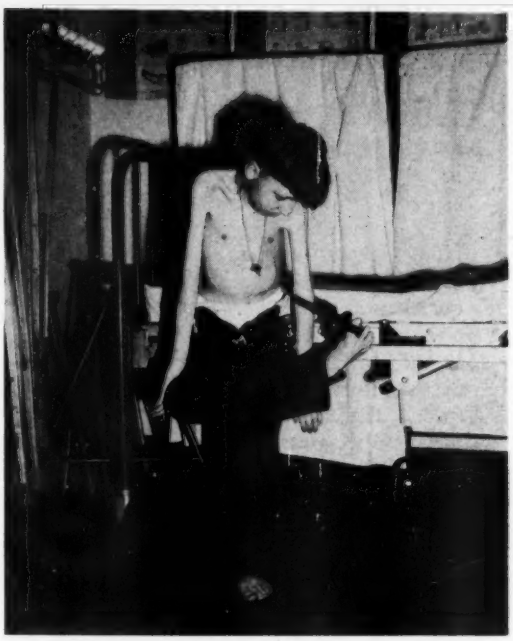
spot as indicated. The finishing position is not important so long as he takes no more room on the bed than he would take if he were lying, arms and legs downstretched. The position and movement of the extremities are not important. The aim is to move out of one spot into another.

11. Lying to sitting, bed. (30″)
Starting Position: Bed-lying.
Instructions to Subject: Come to a sitting position in the center of the bed.
Need:
(1) Many activities of daily life and work are most practicably done in a sitting position.
(2) It is a good resting position, especially if propped, for listening to the radio, conversing, looking at movies or television.
(3) Changing position improves circulation.
(4) Getting off the bed is more easily performed from a sitting position.
Satisfactory Performance: The subject uses no aids other than his own body and does not use the head- or footboard.

12. Sitting to lying (not falling), bed. (10″)
Starting Position: Bed-sitting.
Instructions to Subject: Assume a lying position without falling.
Need:
(1) It is the common position for resting and sleeping.
(2) The alternative of willfully falling to the bed may be uncomfortable and/or harmful or indeed impossible if fear is too great.
Satisfactory Performance: The subject guides himself into a lying position by using his upper extremities and trunk and does not lose his balance.

13. Urinal, bed—(motions). (10″)
Explanation to Examiner: This item is only checked for men and boys, because there is no satisfactory urinal for women.
Instructions to Subject: Adjust clothing and prepare to use the urinal, without doing so.
Need: Disabled subjects are often more susceptible to illness and may spend prolonged periods in bed. Urinals and bedpans may be needed during the night. Urinals and bedpans may be the only practical provision for elimination for those who
(1) Are bed-bound.
(2) Cannot get to the bathroom independently.
(3) Have abnormal bladders and/or bowels and cannot reach the bathroom in time.
(4) Should empty bladder and/or bowels before exercise yet cannot go to the bathroom practicably from the standpoint of time and availability of bathroom.
Satisfactory Performance: The subject approaches the urinal to the body so that they are in the proper position for evacuation of bladder.
Equipment:
1 portable urinal for men.
1 portable urinal for boys.

14. Adjusting clothing as if for bedpan use, bed. (30″)
Starting Position: On bed.
Instructions to Subject: Adjust clothing as if for bedpan use.
Equipment:
1 bedpan for adults.
1 bedpan for children.



Dressing. A daily activity inventory showed that this 14 year old boy with flail upper extremities (polio 1944) could not dress himself. Nevertheless, he had had an occupational therapy program for developing the use of his feet. He had become agile at handling woodworking and other tools. His daily activity inventory served to focus his dexterity upon practical activities such as dressing, and this picture shows him leaning against a bed to draw up his trousers and place suspenders over his shoulders after which he sits down on the floor to zip up his trousers. He has since satisfied all his daily activities which thus justified taking his inventory. It is currently the case that others without inventories are missing out just as did this boy on numbers of items the learning of which means the difference between dependence and its opposite.

15. Readjusting clothing as if after bedpan use, bed. (30″)
Starting Position: On bed.
Instructions to Subject: Readjust clothing as if after bedpan use.

16. On bedpan, bed. (30″)
Explanation to Examiner: A bedpan is placed on the bed beside the subject within his reach.
Starting Position: On bed.
Instructions to Subject: Get onto the bedpan in such a way as to have it underneath the body and in a good position as if for use.

17. Off bedpan, bed. (30″)
Explanation to Examiner: It is important to realize that, even if the subject can perform this activity, it may not be possible for him to do it practicably, as spilling the contents may be a hazard following actual use. However, getting on and off at least give an idea as to the possibilities.

Teaching Tip. A teaching program should include use of the bedpan when its importance is indicated, with plain water in it at first, finally the actual act.

Starting Position: On bed securely on bedpan.
Instructions to Subject: Get off the bedpan with a minimum of tilting of the bedpan so that it is free from the body.
Satisfactory Performance: The subject removes himself from the bedpan completely so that he is resting on the bed and the bedpan is free from his body. The procedure should be done with a minimum of movement of the bedpan, as any such movement might cause the bedpan to spill if it were actually being used.

18. Cleansing after bedpan use, bed—(motions). (10″)
Explanation to Examiner: It may be necessary to explain to the subject that the use of a cloth or toilet paper is something that even a very severely disabled person may learn to do independently. In order to find out the possibilities of such activities, going through the motions of using the hand and the body in combination to effect these performances, is what the examiner is interested in checking.

From the standpoint of independence and also exercise, this act is worthwhile teaching.

Teaching Tip. Exercises may be devised for all parts of the body in a planned program to effect the mechanical performance before actual use of toilet paper. A teaching routine in individual cases where this is indicated rewards the severely disabled subject by giving him some dignity and personal independence and relieving those who have to do with his care.

Starting Position: On bed.
Instructions to Subject: Go through the motions of cleansing after bedpan activities.

19. Combing hair—(motions). (30″)
Instructions to Subject: Pick up the comb and go through the motions of combing hair.
Equipment: Various combs for men and women (a choice should be allowed). 1 mirror.



Dressing. A daily activity inventory had pointed up this boy's daily life difficulties. Specially made clothes or other devices are advocated only as a last resort. By means of specially designed shirts this boy (polio 1944) with almost complete loss of power in the upper extremities has learned to dress himself in six minutes and thus satisfy the dressing requirements. A graph shows slow but sure progress toward practical results. He has achieved traveling in public vehicles. He kept his balance in the bus while kicking off one shoe, unzipping the money bag on his other leg, obtaining a nickel and then raising his foot up far enough to drop the money in the coin box. He accomplished everything without aid. The accomplishment is primary; the method secondary. The method here nets him extraordinary dexterity in lower extremities, great range of motion at hip joints, as well as much needed exercise to his whole body most of which had to some extent been involved.

20. Brushing teeth—(motions). (30″)
Instructions to Subject: Pick up the toothbrush and go through the motions of brushing the teeth.
Equipment:
1 toothbrush for adults.
1 toothbrush for children.

21. Washing body—(motions). (30″)
Instructions to Subject: Pick up the washcloth and go through the motions of using the soap to wash the body completely, starting with face and neck and proceeding downward.
Equipment:
1 washcloth.
1 piece of soap.

22. Shaving or applying cosmetics—(motions). (30″)

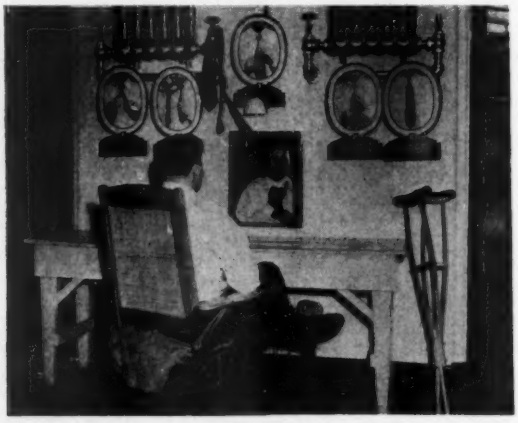
Instructions to Subject: (To a man) Pick up the razor and go through the motions of shaving.

(To a woman) With the cosmetics available, go through the motions of applying makeup.

Equipment:

1 safety razor.
1 medium-sized powder puff.
1 rough applicator.
1 lipstick holder.

23. Dressing except for fastening shoes or tying shoestrings and putting on and adjusting necktie. (15′)



Putting on and adjusting necktie. A daily activity inventory served as a basis for a hand activity teaching program for this "old" polio (1933) with severe deformities and total scattered weakness. It includes, besides tying a tie, buttoning and unbuttoning and cutting with scissors. He has long double leg braces on pelvic band. His 4-point crutch gait is slow, labored and impractical as he cannot get out of a chair. Since this is unlikely ever to be achieved unless with extreme difficulty, his immediate program specializes in wheelchair transference activities.

Explanation to Examiner: The subject is to remove all his clothes preparatory to being checked on putting them on. He may receive help for this, if necessary, in order to save his energy and time. In fact, this is desirable when there is extreme difficulty. It is preferable to have the examiner present, as there is a great deal to be learned from each subject concerning his individual motion difficulties. However, if personnel constituency does not allow for a man to check a man and a woman to check a woman, then the following procedure is suggested: The subject is provided with a sheet to wrap around him while undressed. The examiner remains outside the room or inventory corner, and is called by the subject when he is ready to begin and when he has finished. The examiner checks on the proper initiation and completion of the activity.

Starting Position: Without clothing.

Instructions to Subject: Put on all clothing including shoes, except necktie, but do not fasten shoes or tie shoestrings.

Satisfactory Performance: The various pieces of clothing are put on right side out with all fastenings secured acceptably. The subject is to look presentable.

Equipment: A corner with a bed and space for a wheelchair and/or chair, with a screen sufficiently large to insure privacy makes checking this activity simple.

24. Fastening shoes or tying shoestrings. (1′)

Instructions to Subject: Fasten shoes or tie shoestrings.

Satisfactory Performance: The shoes are securely fastened or the shoestrings tied in acceptable bows. Two loops are not necessary. They need to be tight enough so that they will not become loose during activity.

Equipment: The subject uses whatever shoes he customarily wears.

25. Putting on and adjusting necktie. (1′)

Instructions to Subject: Put on necktie and tie or adjust it.

Satisfactory Performance: Some subjects do not wear the usual long tie which requires tying. If a presentable necktie is adjusted acceptably, the performance may be considered adequate.

Equipment:

Assortment of men's neckties.
1 mirror.

26. Undressing. (10′)

Explanation to Examiner: See No. 23.

Instructions to Subject: Remove all clothing.

27. Cutting meat substitute. (20″)

Instructions to Subject: Pick up the knife and fork and cut the meat substitute, separating the mass into at least two pieces.

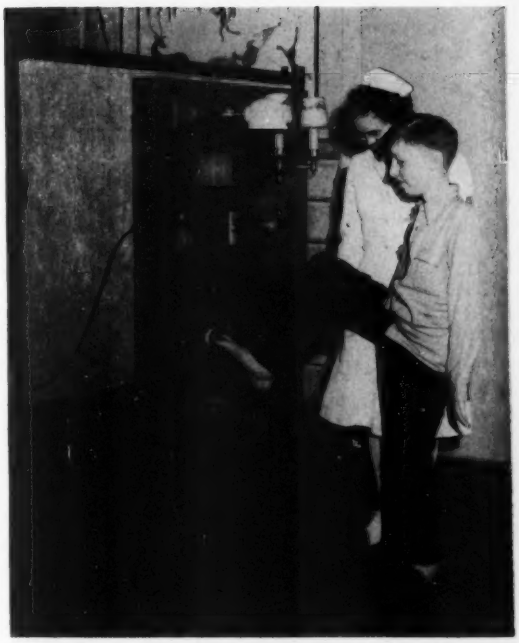
Equipment for Eating and Drinking Activities:

1 plate, containing food modeled out of clay (meat may be red, vegetables their natural shape and color). The meat substitute may be formed into a hamburger one-half inch thick.
1 cup full of water.
1 saucer.
1 glass full of water.
1 knife.
1 fork.
1 spoon.

Sturdy tables, desks or supports for checking eating and desk activities (if these activities are checked in bed, then a bed

table and/or writing board or some good substitute therefor).

28. Spoon to mouth with food substitute. (20″)
Instructions to Subject: Pick up the spoon, take some substitute food and raise the spoon to the mouth.
Satisfactory Performance: The spoon and fork are approximated to the mouth sufficiently to convince the examiner that food could be placed in the mouth by means of the spoon and fork in an acceptable manner.
29. Fork to mouth with food substitute. (20″)
Instructions to Subject: Pick up the fork, spear some substitute food and raise the fork to the mouth.
30. Drinking from cup with handle. (20″)
Explanation to Examiner: Cup and glass are to be clean and water fresh.
Instructions to Subject: Pick up the cup by its handle and drink some (or all) of the water.
Satisfactory Performance: The water is drunk without spilling.
31. Drinking from glass. (20″)
Instructions to Subject: Pick up the glass and drink some (or all) of the water.
32. Writing or printing. (2′)
Explanation to Examiner: It has been found convenient to have a specimen of the writing or printing of the subject on the outside of a manila folder which may be used for subsequent records.
Instructions to Subject: Write or print on the folder as follows:
(1) In the upper right-hand corner: The date.
(2) Beginning at the left, the sentence: "This is my writing." or "This is my printing."
(3) Below the sentence: Your signature.
Equipment:
1 manila folder.
1 pencil.
33. Opening envelope, removing, unfolding paper. (30″)
Explanation to Examiner: The paper inside the sealed envelope has already been folded accurately enough to serve as a sample for the next activity of folding new paper (No. 34.)
Instructions to Subject: Open the envelope, remove the paper and unfold it.
Equipment:
1 small envelope which has been sealed, containing
1 typewriting-size sheet of paper, neatly folded, the narrow edges meeting each other first, then the remainder folded into 3 parts as in usual office practice.



Telephone. This 14 year old boy (polio 1944) has essentially no power in his upper extremities and has adapted his feet to perform activities requiring a high degree of coordination. He used a dial telephone on a table well, although a booth telephone at standing height would not be within his foot reach without something upon which to stand. Adjustable boards on wheels containing varieties of everyday equipment can be regulated to bed height and used while subjects are still in bed. The place of such household utility activities in the daily activity program may be as a supplementary inventory for checking when considered necessary to the testee.

34. Folding new paper, placing in new envelope, sealing envelope. (30″)
Instructions to Subject: Fold the new sheet of paper, place it in the new envelope and seal the envelope.
Satisfactory Performance: The paper is folded neatly, the folds being firmly made, and the paper inserted into the envelope in the conventional manner and sealed so that the envelope could be put into the mail. The finished product is to be acceptable enough to be used as the envelope for the next subject to open and unfold, and as a sample of folding.
Equipment:
1 small envelope.
1 typewriting-size sheet of paper.
1 wet sponge in dish for sealing.
35. Drawing straight line with pencil using ruler. (30″)
Explanation to Examiner: It is convenient to use the paper unfolded in No. 33, for drawing a straight line with the ruler.

Instructions to Subject: Draw a straight line across the paper from edge to edge with the pencil using the ruler.

Satisfactory Performance: A definitely straight line is drawn from one edge of the paper to another (it does not make any difference which edges). The line is neat, firm, continuous.

Equipment:

Paper just unfolded.
1 pencil.
1 ruler.

36. Cutting along line with scissors. (30″)

Explanation to Examiner: If the subject has not been able to draw a straight line across the paper, the examiner does so in order to be able to check cutting.

Instructions to Subject: Cut along the line with the scissors.

Satisfactory Performance: A straight cut is made along the line. It is not irregular but acceptable enough so that the edge of the paper just cut is essentially straight and would pass in an office.

Equipment:

Paper used for drawing straight line.
1 pair of scissors.

37. Telephone. (30″)

Instructions to Subject: Pick up the telephone receiver, dial any 6- or 7-dial number, indicating beforehand what it is, place the receiver to the ear and hold it there; then put it back.

Satisfactory performance: The number is dialed, as given, and the dialing is accurate enough so that a real connection could be made. The examiner suggests a number, if the subject does not choose one himself.

Equipment: 1 telephone, French style (may be unattached).

38. Bed to wheelchair. (1′)

Explanation to Examiner: The wheelchair is placed near the bed in any position desired by the subject.

Starting Position: Completely on bed.

Instructions to Subject: Transfer to wheelchair.

39. Wheelchair to bed. (1′)

Starting Position: In wheelchair next to bed.

Instructions to Subject: Transfer to bed.

40. Forward 30 ft., wheelchair. (15″)

Starting Position: In wheelchair behind 0-foot line facing 30-foot line.

Instructions to Subject: Wheel chair forward across the 30-foot line.

Satisfactory Performance: The activity is performed in an essentially forward direction and the full distance covered.

Equipment: A 30-foot distance to be measured off in an area where checking can be done satisfactorily with a minimum of interference with other programs. The distance may be marked with adhesive tape, or, better, white lines painted on the floor, and labeled 0-foot line, 10-foot line, 20-foot line, 30-foot line. This distance should not be near a door, as traffic will undoubtedly interfere with the checking and vice versa.

41. Backward 10 ft., wheelchair. (15″)

Starting Position: In wheelchair beyond 30-foot line facing in the direction in which he was going while being checked on wheeling forward.

Instructions to Subject: Wheel chair backward across the 20-foot line.

Need: Moving backward is necessary when turning around is not possible or practicable. This may occur under many different circumstances: specifically, in manoeuvering a wheelchair in a bathroom, or in any crowded place or close quarters. Wheelchair management is not complete without the ability to move in all directions, and the usual facilities both inside and outside buildings often do not provide sufficient space for great excursions.

Satisfactory Performance: The activity is performed in an essentially backward manner, not obliquely.

42. Revolution right, wheelchair. (15″)

Starting Position: In wheelchair.

Instructions to Subject: Make one complete revolution to the right.

Need: Many changes of direction require continual adjustment of the wheels of the chair for steering it around and between the many objects both stationary and moving that confront the wheelchair user.

42. Revolution right, wheelchair. (15″)

Starting Position: In wheelchair.

Instructions to Subject: Make one complete revolution to the left.

44. Pushing door open, clearing doorsill, closing door, wheelchair. (1′)

Starting Position: In wheelchair facing door to be pushed open.

Instructions to Subject: Open the door, enter the room and close the door.

Satisfactory Performance: In all door activities, the door is closed by means of its handle and not slammed.

Equipment: 1 doorway of medium difficulty with door, doorsill, knob and latch connecting two areas in such a way that it may be traversed in both directions, should be chosen in the vicinity. The door should be one which

will not close by itself but must be closed by hand.

45. Pulling door open, clearing door-sill, closing door, wheelchair. (1′)
Starting Position: In wheelchair facing door to be pulled open.
Instructions to Subject: Open the door, enter the room and close the door.

46. Up ramp, wheelchair. (1′)
Starting Position: In wheelchair in front of ramp facing up.
Instructions to Subject: Wheel chair up the ramp onto the platform.
Equipment for Nos. 46, 47, 72, 73, 80, 81, 99:
2 platforms (designated as Platform No. 1 and Platform No. 2), 5 by 5 feet by 8 inches, to serve as curbs.
1 ramp 5 by 5 feet by 8 inches inclining to 0 inches, to fit next to Platform No. 1 and be fastened to it for safety.
Curbs and ramps as encountered in daily life are difficult to manage for two reasons: (1) they require elevation against gravity, and (2) they often do not have hand supports or anything on which to lean. On the other hand, they usually have two attributes: (a) heavy construction and consequent stability, and (b) plenty of space. Therefore, these should be built of sturdy enough materials and be so placed as to offer the necessary solidity and stability.

47. Down ramp, wheelchair. (1′)
Starting Position: In wheelchair on platform facing down.
Instructions to Subject: Wheel chair down and off the ramp.

48. Wheelchair to chair. (1′)
Starting Position: In wheelchair next to straight chair, both in center of room, neither touching anything.
Instructions to Subject: Transfer to chair.
Need: It allows change of position, as well as use of toilet seat, standard chairs at the dining table, easy chairs in the living room, movie and theater seats and regular seats in school.
Equipment:
1 straight chair without arms for adults.
1 straight chair without arms for children.

49. Chair to wheelchair. (1′)
Starting Position: In chair next to wheelchair, both in center of room, neither touching anything.
Instructions to Subject: Transfer to wheelchair.

50. Wheelchair (chair or stool) to toilet. (1′)
Explanation to Examiner: Sometimes it is not possible for a wheelchair to pass through a bathroom door, or, if so, for the wheelchair to assume a position such that a subject can be expected to transfer himself from it to the toilet seat. When such is the case, it is permissible to have the subject transfer to a chair and thus be prepared to attempt to get from chair to toilet seat. Even if a series of chairs or stools is necessary so that the subject is finally seated in such a manner as to permit transference to the toilet seat, these may be used legitimately. However, if there is sufficient room for the wheelchair to be moved next to the toilet seat, other chairs and/or stools should not be used.



Chair to wheelchair. In the act of transferring back into wheelchair, this young boy (polio 1944) satisfies inventory requirements at the same demonstrating the ease with which the activity can be performed when body weight can be lifted.

Since wheeling a chair through a doorway has already been checked, the activity to be checked and timed is merely the last transference. It is felt that the subject should not be expected as part of the inventory to manipulate any necessary chairs or stools, and thus be penalized by structural limitations of building or wheelchair. Therefore, if chairs or stools are necessary, the subject is not timed on their manipulation and, in fact, may be helped into the starting position.

Such additional activities, however, should

Teaching Tip. be included in a teaching program, if needed in the subject's daily life and/or work.

Starting Position: In wheelchair or on chair or stool near enough to toilet seat to permit transference.

Instructions to Subject: Transfer to toilet seat.

Equipment:

1 toilet.

1 junior toilet seat for children.

Chairs and/or stools as found necessary.

51. Toilet to wheelchair (chair or stool). (1′)

Starting Position: On toilet seat.

Instructions to Subject: Transfer to wheelchair (chair or stool).

52. Adjusting clothing as if for bowel evacuation, wheelchair. (30″)

Starting Position: In wheelchair, on chair or toilet seat.

Instructions to Subject: Adjust clothing as if for bowel evacuation.

53. Readjusting clothing as if after bowel evacuation, wheelchair. (30″)

Starting Position: In wheelchair, on chair, or toilet seat.

Instructions to Subject: Readjust clothing as if after bowel evacuation.

54. Cleansing after bowel evacuation, wheelchair—(motions). (10″)

Starting Position: On toilet seat.

Instructions to Subject: Go through the motions of cleansing after bowel evacuation.

55. Wheelchair to automobile. (1′)

Explanation to Examiner: If the subject owns a collapsible wheelchair, he should be taught to collapse it himself and elevate it into the automobile after he has seated himself, and also to manage it himself when leaving automobile. This is not included as an inventory item, since few people own collapsible wheelchairs. *Teaching Tip.*

Starting Position: In wheelchair next to automobile in such a way as to permit door to be opened.

Instructions to Subject: Open the door, transfer to the automobile and close the door.

Equipment: 1 automobile(or the use of one) preferably placed near curb, as would be the natural occurrence.

56. Automobile to wheelchair. (1′)

Starting Position: Seated in automobile, door closed.

Instructions to Subject: Open the door, transfer to the wheelchair and close the door.

57. Wheelchair to floor. (1′)

Explanation to Examiner: The floor or a mat may be used.

Starting Position: In wheelchair.

Instructions to Subject: Transfer to the floor.

Need: It is only from a floor position that floor activities may be performed as described in No. 59.

Satisfactory Performance: The subject is on the floor entirely clear of the wheelchair.

Equipment: 1 gym mat.

58. Floor to wheelchair. (1′)

Explanation to Examiner: The floor or a mat may be used.

Starting Position: On floor.

Instructions to Subject: Transfer to the wheelchair.

59. 30 ft., lying, sitting or crawling, floor. (3′)

Explanation to Examiner: No appliances are to be used.

Starting Position: On floor behind 0-foot line, headed for 30-foot line.

Instructions to Subject: Move on the floor across the 30-foot line.

Need:

(1) It may be the easiest way for appliance users to go to the bathroom at night or the first thing in the morning, when time and circumstances do not make it practicable to put on appliances.

(2) It may be the best way to move from place to place in an emergency, such as a fire.

(3) It is the only place for selected exercises indispensable to the maintenance of health and strength in the disabled.

(4) Cleaning the floor may be done most efficiently on the floor.

(5) Objects may be retrieved from behind or underneath furniture.

Equipment: Sufficient space for this activity. The floor may be used provided there are no splinters or other dangerous obstacles. Otherwise, mats are recommended as follows: seven ordinary gymnasium mats 9 by 5 feet covered with rubber material made into complete envelopes with no openings, placed width-wise, are suitable for checking this activity, as well as teaching exercises to disabled people. Thirty feet are measured off and a white seam or line indicated at either extent of this distance with enough space at either end for the length of an average body. *Teaching Tip.*

(*Continued in next issue*)

NATIONALLY SPEAKING

*PRESIDENT'S ADDRESS**

Here in this beautiful setting it is my privilege to greet you the members and friends of the American Occupational Therapy Association, who have assembled to consider the *Peaks for Tomorrow* in occupational therapy.

We, as occupational therapists, have climbed far in thirty-three years. But as you well know we have not yet attained the professional peak to which we all aspire. No goal is reached without a few set-backs as the road becomes congested with the hazards that the progress of time and development puts in the path. It is pleasant to reflect upon our accomplishments which have been many and which each of us by nature like to recount. This you may do with just pride as you listen to the reports which will follow from our executive director and committee chairman.

During these years of growth the scope of occupational therapy has broadened as it should until now it encompasses an ever widening field of usefulness in the treatment of the sick and disabled. This expansion has necessitated an increasingly higher standard of education and training for the occupational therapist. Simultaneously came increasing demands for adequately qualified personnel in the teaching institutions offering occupational therapy courses. Our schools, now numbering twenty-five, have shown a steady rise which would seem to be commensurate with the demand for well trained personnel in the field of active treatment by O.T.'s. However, we are all well aware that it is not the case. At the present time our profession is woefully lacking in personnel to meet the requests for the services of occupational therapists in almost every treatment area. We realize that this condition exists in almost every profession but we are particularly conscious of those in the area of auxiliary medicine. For this reason it has become necessary for physicians and those responsible for the total treatment of patients to supplement their facilities by utilizing personnel from other specialty groups in activity programs.

Music, education, recreation and industrial arts are essential adjuncts to the specialized therapeutic techniques and modalities. For the effective coordination of treatment with these various important educational and recreational programs the occupational therapists must be able to take leadership. To do this she must have been prepared by educational training in school or experience in the field. This need imposes the obligation on our schools to better equip occupational therapists for their responsibility. If we are to measure up to this professional responsibility in the large medical rehabilitation programs the experienced occupational therapists must be willing to move on to assume the guidance of the less experienced. Can we meet this challenge? It's natural to wish to remain in a well organized medical situation which gives both personal and professional satisfaction. However, each of us must be alert to the future of occupational therapy. In order to maintain and develop our professional standing we must distribute our limited numbers wherever they can be most effective.

Those of us who are directing a staff of therapists must be constantly conscious of the vital need to develop leadership in the younger therapists. We must not only be willing to release them but encourage them to accept more responsible positions just as soon as they show ability to carry on. Yours is just as important a teaching function as that which the schools maintain. The attrition of graduates from our O.T. courses makes this factor of progressive training on the job doubly important.

If you seriously consider the rapidly growing demand for occupational therapists in the many federal, military, state and community programs, you will recognize the urgency of the present siutation.

Through the stimulation of pressure and necessity to meet our responsibilities we should gain stature. A great deal of professional interpretation is needed in order that every member of our profession can thoroughly understand the impact of need in relation to the comparatively small number of qualified occupational therapists available for service. Occupational therapists must be motivated by the need.

The problems that lie before us are many. The development of more courses will require the constant recruitment of students since all professions are actively recruiting in their own fields for the same reason—the shortage of personnel.

The selectivity of students is important because we lose a high percentage upon graduation. Our education office and the Committee on Education are working diligently to find ways and means to interest young men and women with special educational qualifications to enter accelerated courses in occupational therapy especially designed for those already prepared in certain techniques or areas required in occupational therapy.

Nearly all of the state associations have carried on very creditable recruitment projects during the past year and we hope to be able to give you an

* Read at the General Session, 33rd Annual Convention, Glenwood Springs, Colorado, October 17, 1950.

accounting of your efforts in this direction as soon as the schools can analyze their enrollment for this year.

We feel certain it has helped and it must continue for we still have a long way to go. The Recruitment Committee has organized a fine campaign which we all must carry on with concerted effort.

In so strongly emphasizing the importance of a critical analysis of our professional situation I do not in any way minimize your many fine accomplishments.

These will be reported to you by the committee chairmen to whom high praise and grateful appreciation are due and hereby acknowledged with sincere thanks. In this connection I would like to read to you a letter from Dr. Emory Morris, President of the Kellogg Foundation.

Dear Miss West:

We have reviewed with a great deal of interest the report submitted by you on September 22 covering the activities of the American Occupational Therapy Association during the 1949-50 fiscal year.

Your report was exceptionally well presented and is one of the finest reports we have ever received from any organization. The report also speaks very well of the activities of the Association and the splendid direction given to the program by yourself and Miss Otto. We are pleased that your programs are moving along so nicely and that you are achieving success in your long-term goal of financial stability. This is a tremendous problem with many organizations and particularly with an organization experiencing so rapid a growth as yours.

We are also delighted that you have been able to secure financial assistance from the Grant Foundation toward the research aspects of the program of your educational field office. This is certainly a splendid vote of confidence to your Association and your officers.

It has been a pleaseure on the part of the Kellogg Foundation to work with the American Occupational Therapy Association during the past six years. We are happy that we have been in a position to assist you and feel that our object of helping you put your Association on a solvent basis has been successful. We will enjoy hearing from you from time to time as to the activities of the Association and will be watching your accomplishments with keen interest.

Very truly yours,
(Signed) Emory W. Morris

The membership working diligently in the State Associations has contributed immeasurably to the strength and unity of your House of Delegates. The reorganization of this body provides effective continuity of delegate representation and thereby stronger support to your national office.

It is our aim to motivate and put into actual usage all of the potentialities within our membership. By facing reality we can recognize with calmness our vital problems. Let us all investigate these facts, then with earnest judgment and sincerity strive to reach the "Peaks for Tomorrow".

Opportunity has never been greater for occupational therapy.

In conclusion may I extend to each and every member my sincere thanks for your many contributions and fine cooperation with your national office. This, we realize, is maintained often with great personal sacrifice of time, energy, and best of all a genuine interest in your chosen profession — *occupational therapy.*

Winifred C. Kahmann, O.T.R.,
President.

*ANNUAL REPORT OF THE EXECUTIVE DIRECTOR**

It seems to grow increasingly difficult each year to make a proper report of what goes on in your Association-at-large and in your National Office without taxing your patience with the same drawn-out recital of details. As you will presently hear in the reports which follow, the planning and operation of our professional activities are accomplished in large part by the Association's standing and special committees under the direction of their hard-working chairmen. The New York Office is, in a sense, the framework on which it all rests and of course you are aware that there is a mass of varied clerical, stenographic and bookkeeping detail which must be worked at constantly, amid countless interruptions, to keep us in anything like decent order and efficiency. Along with this is the very pleasant task of being official "greeter" to the many members, O.T.R.s, visitors and friends who appear at the National Office from literally everywhere during the year.

In planning this report of what we have done with our time and your money in the past twelve months, it occurred to me that perhaps a bare enumeration of just what had recently happened on one or two days might give you a clearer picture than a long listing of statistics. So I kept a few notes — in addition to those in the diary which keep your thousand-mile distant President informed of our "state of affairs"—and here they are:

First day:

Arrived at 8:45 and opened the mail which consisted of advertisements, travel folders and circulars; applications for membership and registration; requests for information about training; the weekly Journal of the A.M.A.; invitations to the preview of a film on C.P., the installation of a new president of a college in Idaho and a demonstration of a Hobby-Knit-Kit; fourteen requests for personnel; three complaints about missing A.J.O.T.s; a command-performance call to a Civil Service hearing on O.T. salaries; the Washington Report on the Medical Sciences; the U.S. Public Health Service report; the report of the Mayo Clinic and the venereal disease journal; two requests from high-school

* Read at The General Session, 33rd Annual Convention, Glenwood Spring, Colorado, October 17, 1950.

students for literature to write a paper on O.T. and several miscellaneous letters. In answer to one of these, we tried to locate a 1919 graduate for an alumna of the same year. It involved perusal of dust-covered Yearbooks, three telephone calls, and reading through all the Morgans in the New York City Directory, all futile... Wrote several letters about job standards, training courses, registration requirements, placement possibilities and other matters. . . . Revised Standard Operating Procedure for Nominating Committee, corrected script for filmstrip, and drafted article for A.J.O.T. . . . Telephone conversation with P.T. Association about content of reports of national organizations for Mid-Century White House Conference on Children. . . . Interviewed a job applicant wanting to be located in Times Square at $4000 a year, the director of a C.P. clinic recruiting personnel for Oklahoma and a dictaphone salesman. . . . Arranged itinerary for visiting doctor from Siam, got estimates for reprinting brochure, checked copy for article in *Glamour*. . . . Talked with the Registration Committee Chairmen and studied a public relation's counsel's proposal for a 5,000-dollar-a-year contract. . . . A member brought in material for an exhibit which involved a private showing of the rest of the material on hand. . . . Started surveys of the effect on enrollment of the national publicity campaign and of the average number of years of service of today's graduates... Interviewed a hotel representative who wanted our 1954 Convention and the Executive Director of the International Society for the Welfare of Cripples who suggested a meeting of O.T.s in conjunction with their first international meeting in Stockholm in 1951. . . . Visited a nursing home in the Bronx that wanted to start an O.T. Department and stopped off at Columbia to talk to the seniors. On the way back, picked up proof from the printer's and discussed office re-painting with the Building Superintendent. . . . Two other members visited Office during the day. . . . twelve miscellaneous phone calls. . . . . Attended evening meeting of New York State Occupational Therapy Association.

Second day:

Began with a 30-minute telephone conversation with the Recruitment Committee Chairman. Seem too long? Sometimes it's the only way to have such a talk uninterrupted. This was followed by three phone calls to and from our research consultant. . . . Talked with two likely candidates for O.T., trying to present the profession fairly and without seeming too much like a desperate Army draft board. . . . Dictated several letters and tried to dig up the answers to several more. . . . Discussed standard plans project with the architect and arranged to take a prospective A.J.O.T. advertiser through a municipal O.T. Department. . . . Wrote memo to the Executive Committee for approval of interim business and discussed establishment of O.T. course with Dean of Women from Skidmore College. . . . Reviewed semi-annual report for Grant Foundation and wrote prospectus for the balance of the year's research project under their appropriation. . . . Had lunch with out-of-town school director and discussed ways and means of effecting changes in the A.M.A. Essentials. . . . On return, found a member waiting to get information about national salary scales, average work loads, etc. . . . Re-read, for the fourth time, complaint of an interested member that our bills resemble Gestapo notices, and wrote the green memorandum which came with your annual reminder a couple of weeks ago. . . . Approved bills, signed checks, went over the books with the auditor, examined securities in the Chase safe-deposit box. . . . Sent budget to Treasurer, mid-year report to Board, Constitution of Puerto Rican Association to Speaker of House of Delegates and suggestions for agenda to the Chairman of the Education Committee. . . . Dispatched traveling exhibit to Kansas and recruiting material to Washington state. . . . Supplied National Foundation for Infantile Paralysis with additional data on scholarship applicant and tried to get a part-time O.T. for a private patient. . . . Telephone conversation with N. Y. University O.T. student wanting information for talk at high school career conference and another with O.T.R. inactive for several years about possibilities for refresher courses . . . Accepted invitations to National Vocational Guidance Convention, meeting to form National Association for Music Therapy and annual meeting of N. Y. State Association for Crippled Children . . Wrote another two pages for the text to accompany publication of standard plans for O.T. departments. . . . Saw First Vice-President, Chairman of Education Committee and Treasurer off on the Queen Mary and started to worry about the problems certain to arise before they reached the Mid-Atlantic. . . . Several miscellaneous phone calls, a couple of salesmen. . . . Caught the Congressional for Washington to represent O.T. at National Conference on Aging.

If either one of these seems like a rather unusual day's work, you will have to forgive my combining the events of several days in order to give you some concept of the scope and variety of our over-all activity.

I would like to go back to those telephone calls so prominent in the diary. The mere fact that

the words *occupational therapy* appear in the Manhattan telephone directory automatically makes us the representative of the profession. Much of our work is truly a public relations service. We're asked such questions as "What is Occupational Therapy and how can I be a therapist?" . . . "Which is the best school of O.T.?" . . . "Do I really have to send my daughter's picture to the college with an application for admission?" . . . "Where can I get a scholarship?" . . . "Please send me information on O.T. for my father who has very bad arthritis." . . . "I am applying for work as an O.T. and am enclosing samples of my embroidery which recently took first prize in an exhibit." . . . "My niece has receive an N.F.I.P. scholarship — what does that mean?" . . . "What is Mrs. Kahmann's middle initial and is she Miss or Mrs.?" . . . "I would like a position in music therapy" . . . "I'm an O.T. student reporting for clinical training on Staten Island — how do I get there?" . . . These are only a few of the questions the Office has to be prepared to answer any day of the week. That is the reason for including those daily telephone calls in the review of any of our days. In addition to these "sidelights" which are part of the lighter side of our public relations functions, the other big phase of our activity revolves about membership and committee services with which you have, at least, a nodding acquaintance.

Seriously now, I think we can point with pride to several things that have occurred in the past year and which stand as significant milestones in our constant efforts to improve and promote occupational therapy. There is the ever-increasing recognition of O.T. that is evidenced by more invitations to national conferences, more requests for representatives and speakers at meetings of allied agencies, more calls for help from state civil service divisions in establishing job standards, classifications and salaries. There are more prospective students looking into educational requirements, more hospitals wanting O.T.s and more colleges inquiring about the method of starting training courses. There is more literature being written on O.T., not only by ourselves; even more criticism of O.T., in itself a sign of our growing importance.

And amongst ourselves, there are similar indications of growth and maturity. There is a larger percentage of O.T.R.s who hold memberships and thus a larger source of income to meet the increasing demands on our budget. More members are voting, making suggestions about national activities, joining existing state associations or establishing new ones, and in other ways expressing increased interest in their profession — its present and future. The standing and special committees of the Association have never been more active, their memberships so large nor their efforts so wide-spread. Our Education program has utilized the thought and effort of hundreds of O.T.s in the clinical field and has resulted in the publication of more Guides, Manuals and other instruments than some of us have had time to read.

These and many other signs point to an occupational therapy that is steadily and surely coming of age. We have been engrossed in the never-ending task of improving our proessional service in ways that will qualify it to participate most effectively in the general rehabilitation program designed to meet the problem of the handicapped. We also recognize some handicaps in meeting the problems of occupational therapy. Past achievements and future developments will bring with them new needs and larger problems while there are still many that remain unsolved. Prominent among these today are recruitment and publicity, scholarship subsidy, improvement of clinical techniques, personnel for military service in a world not at peace and the strengthening of educational foundations at both the didactic and hospital levels.

In our contemplation of the theme of this Conference—"Peaks for Tomorrow"—let us face and do all within our power to meet each new demand and challenge to our existence. We have earned "a place in the sun" but we're at the crossroads where the choice of our future path will determine how we keep and extend that place.

My report ends with an expression of thanks and appreciation to the Officers, Board, Committees, Office staff and especially to each and every member whose interest, support and cooperation have spelled the achievements of the past year.

Respectfully submitted,
Wilma L. West, O.T.R.,
Executive Director

*ANNUAL REPORT OF THE EDUCATIONAL FIELD SECRETARY**

The continued generous support of the Kellogg Foundation in 1949-50, and the new support of the Grant Foundation have made it possible for the American Occupational Therapy Association to push forward the educational research program so important to the development of the profession. During the year several of the projects started previously were completed; two of the projects concluded in the past and tried out by the membership were analyzed and, as a result, revised; other continuing projects were further developed.

The following report is a summary of progress

* Read at the General Session, 33rd Annual Convention, Glenwood Springs, Colorado, October 17, 1950.

in the educational research program during 1949-50.

A. *PROJECTS COMPLETED DURING THE PAST YEAR*

Curriculum Guide. This project, one of the first undertakings of the educational research program, was completed during the past year. Copies of the Guide have been distributed to occupational therapy school and clinical training directors and all directors have been asked to make full use of the Guide to integrate their instructional programs.

Publication of the Curriculum Guide, conceived as the basis for curriculum planning in occupational therapy, places detailed course outlines, for the first time, in the hands of all school and clinical training directors. This standard, topical organization of teaching material should facilitate overall planning of student training on the part of these groups and thus serve as a means of unifying the concepts and practice of the profession.

Student Manual. This Manual was completed in March, approved in draft form at the April meeting of the Education Committee and published in July. Schools of occupational therapy are requesting it for their senior students to be used as a guide during their clinical training period and are also employing it as textbook with junior and sophomore students.

The Manual provides a complete introduction and orientation to a wide variety of situations the student may encounter in clinical practice. It will thus aid in standardizing preparation for this phase of the student's education on the part of the student and the clinical training director. Since this Manual is the first publication of its kind in the field, it constitutes a significant addition to occupational therapy literature.

B. *PROJECTS REVISED AND ANALYZED DURING THE YEAR*

Clinical Training Materials. The Interpretational Key to the Student Clinical Report Form and the Rater's and Director's Guides, developed in 1947 by the Education Office to assist O.T. department directors in the training of students and the rating of student performance, were revised during the past year. The changes made in these materials were based on the findings of an analytical study of the effectiveness of the Report Form conducted by the Education Office during 1948. This study, in which all school and clinical training directors participated, indicated that the Form emphasized the evaluation of the student's personality, with relatively poor indication of her grasp of technical knowledge and level of performance. Training directors also objected to the fine distinctions necessitated by the use of a fifteen-step rating scale.

The newly constructed Form is now being used in all training centers, together with the revised Rater's and Director's Guides, which were re-written to conform with the new rating procedures. Reports received from schools and clinical training directors confirm the achievement of the purposes sought in the construction of the new Form.

Performance Report Form. This Form, developed last year for the purpose of rating performance on the job in contrast with performance on the registration examination, was administered to 276 first-year occupational therapists who had taken the registration examination. The ratings obtained were correlated against the same therapists' scores on the registration examination. Unfortunately, the relationship between these two ratings was found to be low. In the revision currently under way, greater emphasis is being placed on performance, and the indirect measurement of traits necessary to demonstrate that performance, rather than on the specific traits used in the original Form. When completed, the Form is again to be used with first-year practicing therapists as well as with those previously rated, for further study of the effectiveness of the registration examination in predicting the examinees' success on the job.

C. *PROJECTS DEVELOPED FURTHER DURING THE YEAR*

Registration Examination. The national registration examination was again given twice during the current year to a total of 391 students. As in the past, preparation of the two parts for each administration of the examination required careful analysis, evaluation, and review of all test items as well as necessary replacements in order to secure the desired degree of difficulty and discrimination.

In order to protect the content of the registration examination, which had been given six times since it was first constructed, a totally new part (150 items) was introduced in February 1950. The construction of this part necessitated an intensive drive to obtain examination items for the different areas of occupational therapy and the reviewing and editing of these items.

Another intensive drive is now under way to obtain test items for a fourth new examination part as well as for the item pool from which to draw replacements. To facilitate the work

of the item writers, an Item Writer's manual was written. This is proving to be of considerable assistance to the many occupational therapists participating in the never-ending task of building a measure of achievement which is valid and reliable.

On completion of the Curriculum Guide, it was necessary to re-allocate the distribution of questions on the registration examination in accordance with changes in curriculum patterns, course content and teaching emphasis.

Evaluation of O.T. Departments. This project was initiated this year with the development of survey forms and a pilot study of these forms was made at 50 selected departments distributed geographically throughout the country. The replies are now being analyzed to determine the workability of the questionnaire and to find an economical method of reporting and analyzing the data obtained. These will be used to develop the final form of the Self-Evaluation questionnaire whereby departments can apply a standard yardstick to their practice and arrive at their essential strengths and weaknesses.

Student Selection Instruments. Work on this project started in the Fall of 1949. With the assistance of eight occupational therapy consultants selected on the basis of their experience in clinical and educational fields as well as other qualifications required by this project, multiple-choice and self-report test items were written in those areas of personality and interest where distinctions between effective practice and malpractice might be made and found. The areas covered relate to all types of mental, physical, social and emotional adjustment, childhood and adolescent experiences, socio-economic, educational and recreational background, and knowledge of or interest in the ancillary medical fields. The last was included to ascertain why occupational therapy was chosen as against another ancillary medical field such as physical therapy, nursing or medical social work.

The items written by the eight consultants were reviewed, edited, printed in a preliminary trial form, and are now being administered to approximately 400 practicing therapists for purposes of validation.

Analysis of the answers to these items, selection and further tryouts of those items which seem to draw pertinent answers are all part of the future development of this project. It is believed that the final forms can be put into use in 1952. Universal employment of the same should lead to improved selection methods and thus to the admittance of only the best suited candidates to the study of the profession.

Development of Graduate Study Opportunities. During the past year the American Occupational Therapy Association continued its efforts to obtain funds under the National Mental Health Act for the support of graduate training of occupational therapists working with the psychiatric patient. Meetings were held with the Training Committee of the United States Public Health Service and the need for financial assistance in the preparation of therapists for this specialty was re-emphasized. There are to be additional meetings for further discussion of our request as well as for those of other professions also interested in obtaining assistance before a final decision will be reached.

D. *OTHER ACTIVITIES OF THE EDUCATION OFFICE*

The American Occupational Therapy Association was asked to send a representative to the First Institute for Rehabilitation Problems held at the School of Tropical Medicine in San Juan, Puerto Rico, February, 1950, to discuss the education of the occupational therapist and requirements and procedures for a professional school. During her stay on the Island, the Educational Field Secretary, who represented the Association, was also asked to counsel the Island's small group of occupational therapists in professional and technical matters as well as in the organization of a Puerto Rican Chapter to be affiliated with the American Occupational Therapy Association.

During the past year the Education Office has carried other responsibilties which do not fall under the educational research program as such, but which belong in the Education Office by the very nature of its existence. Some of these are the recruiting and advising of students; counseling of schools in conjunction with the American Medical Association requirements, solicitation of scholarship funds, planning the yearly A.O.T.A. Institute, and informing the members of its activities through regular reports in each issue of A.J.O.T. and the Newsletter.

E. *SUMMARY AND PROSPECTUS FOR THE FUTURE*

Summary. A review of the list of project originally planned for the educational research program shows five to be completed, five still under development, and two which have not as yet been started.

Prospectus. The future of the Education Office will necessarily concern continuation of the five projects currently under development. Of this number, only two (Performance Report Form and Evaluation of Occupational Therapy Departments) can be completed during the coming year. The Student Selection Instruments should be completed by the end of 1952 and work will necessarily continue indefinitely on the remaining two projects, which are the registration examination and the devlopment of graduate study opportunities.

Conclusion: This report has summarized more of our educational activity than just that which has been accomplished in the past year. This has been done primarily because of the fact that the 1949-50 fiscal year terminated the five consecutive years during which our educational research program has been so generously supported by the Kellogg Foundation.

It is my opinion that few of our national efforts have had a stronger effect in the promotion of standards of education and practice. The nature of research and the methods essential to its conduct, involving the cooperation of large educational and clinical groups of occupational therapists, have been responsible for a strengthening of our professional group consciousness. The Office has at all times had the enthusiastic and complete cooperation of the entire membership.

To a profession as young and small as occupational therapy, the development of a sound program of educational research has been of tremendous value. This program must be continued by the Association if at all possible. A modest financial backlog has accrued by virtue of careful spending in the past three years which, together with income from examination fees, the Institute and allocations from the General Fund, will adequately finance the 1950-51 fiscal year. Beyond that time, further provision will have to be made if the program is to continue.

On behalf of the Education Office, may I express gratitude and appreciation of the interest and support shown by the Officers, Board, Education Committees and entire membership in the research program. It is hoped that this report of progress justifies the confidence implied in the cooperation of all those who have made it possible.

Respectfully submitted,
for the Education Office,
Helen S. Willard, O.T.R.,
Chairman, Education Committee

THE AMERICAN JOURNAL
OF OCCUPATIONAL THERAPY

Official bi-monthly publication of the American Occupational Therapy Association, 33 West 42nd Street, New York 18, N. Y.

Editor - - - Lucie Spence Murphy, O.T.R.
1916 E. Glendale Ave.,
Milwaukee 11, Wisconsin

Associate Editors - - Frances Stakel, O.T.R.
Ruth Bell Wendle, O.T.R.

ADVISORY COMMITTEE

Pediatrics - - - - - H. G. Poncher, M.D.
University of Illinois Medical Center
Physical Medicine - Robert L. Bennett, M.D.
Georgia Warm Springs Foundation
Psychiatry - - - Walter S. Barton, M.D.
Boston State Hospital
Public Health - - - A. W. Reggio, M.D.
U. S. P.H.S. Medical Director, Retired
Tuberculosis - - - - - A. L. Banyai, M.D.
Muirdale Sanatorium
Editorial - - William R. Dunton, Jr. M.D.
Catonsville, Md.
Nursing - - - - - Jessie L. Stevenson, R.N.
Vanderbilt University

DIVISION EDITORS

Marguerite Abbott, O.T.R.
Eleanor Albertson, O.T.R.
Margaret Blodgett, O.T.R.
Mary Britton, O.T.R.
Josephine Davis, O.T.R.
Wanda Edgerton, O.T.R.
Marvel Eno, O.T.R.
Ruth Franks, M.B., M.A., Ph.D.
Margaret Gleave, O.T.R.
Frances Helmig, O.T.R.
Grace Hildebrand, O.T.R.
Sue Hurt Gibbs, O.T.R.
Winifred Kahmann, O.T.R.
Isabel Kellogg, O.T.R.
Barbara Locher, O.T.R.
Henrietta McNary, O.T.R.
Eva Otto Munzesheimer, O.T.R.
Bertha Piper, O.T.R.
Ruth Robinson, Lt. Col.
Libbie S. Rose, O.T.R.
Margaret Rood, O.T.R.
Beatrice Wade, O.T.R.
Elizabeth M. Wagner, O.T.R.
Thelma Wellerson, O.T.R.
Carlotta Welles, O.T.R.
Wilma West, O.T.R.

CONTRIBUTING EDITORS

Myrl Anderson, O.T.R.
Mary Black, O.T.R.
Edith Brokaw, O.T.R.
Wanda Edgerton, O.T.R.
Patricia Exton, O.T.R.
Margaret Finnegan, O.T.R.
Mary Merritt, O.T.R.
Elizabeth Messick, O.T.R.
Doris E. Ray, O.T.R.
Caroline Thompson, O.T.R.
Susan C. Wilson, O.T.R.
Elizabeth Wise, O.T.R.

Subscription rates: Price to members included in yearly fees; to non-members $5.00 a year domestic, $5.50 foreign. Single issues, $1.00.

Advertising rates: Rates for display advertising furnished on request. Classified advertising accepted only for Situations Wanted and Positions Available.

Change of address: Notice should include the old as well as the new address, postal zone, and should be mailed to the editorial office four weeks in advance of publication date.

Manuscripts: Original contributions submitted for publication in the American Journal of Occupational Therapy are for exclusive publication and may not be published elsewhere. Opinions and statements expressed in the magazine are those of the authors of articles and are not to be considered as representing the views of the American Occupational Therapy Association.

CONVENTION MEMORIES

The awe inspiring scenery of Glenwood Canyon . . . the warm days and bracing nights . . . the enervating hot springs bathing pool . . . the talk, talk, talk of occupational therapy . . . the committee meetings that lasted far into the night . . . the cocktail parties before dinner, especially the one given by the exhibitors for the entire convention, it was wonderful . . . the stylish travelers from the train who were soon transformed by slacks and blue jeans . . . the barbecue dinner with oh, such food and impromptu entertainment, climaxed by a Virginia reel . . . the interesting and inspiring convention speakers from near and far (see future issues for some of the speeches) . . . the new movie by Dr. Bennett completed just in time for a showing . . . the appropriate banquet speech by Dr. Barbato that was all too short — hope he will enlarge on his ideas for an article in the Journal soon — well worthwhile . . . the interesting and effective commercial and educational exhibits . . . the movie of New Hampshire where we will meet next year — Sept. 8 to 15 at Portsmouth and the big plans the committee expressed for the event . . . the badinage among the doctors that added to the esprit de corps . . . the souvenir bag of gold given at the School's luncheon and the ceramic cowboy at the banquet . . . the stuffed and slightly moth eaten dear head that graced the table of U.S.C. . . . the beautiful program covers . . . the busload of O.T. students from Ft. Collins so necessary to the success of our Institute . . . the unprecedented cooperation of the hotel management that added so much to the success of the convention . . . the enthusiasm evidenced at the work sessions of the Institute . . . after each session the serious discussions in the patio and on the trails . . . the brave souls who made the trip to Hanging Lake, a rugged two mile climb in the high altitudes . . . the trout that nibbled but wouldn't bite except for J. C. Larson . . . the opportunities to renew old friendships and cement new ones . . . the trip to Aspen and a ride in the ski lift which proved what good sports O.T.'s are—took the breathtaking ride above the treetops with delight, only casualties two shoes and a coin purse . . . the glory of the shimmering golden Aspen leaves . . . the grand prizes the exhibitors donated for a luncheon party. All of us who didn't win were envious of those who did . . . the cave-in of two tunnels which lead everyone to hope we'd be marooned, instead gave those traveling East a longer ride through the Royal Gorge . . . the reunion in Denver on Saturday night before dispersing to mundane affairs . . . all in all a very successful convention packed with work and inspiration but interluded with lots of fun. Beautiful weather and unrivaled scenery combined with an excellent program of problems pertinent to occupational therapy made the eight day stay too short. Everyone there will a better O.T. for the trip. If only time and human energy allowed an immedate effect of all the wonderful ideas gain! Thank you, Colorado, for everything.

(*Continued from Page* 246)

*Friedmann, Irwin, "Art in Occupational Therapy." A mimeographed outline for the therapist in the neuropsychiatric field, printed at Brendwood V. A. Neuropsychiatric Hospital, 1948. 7 pp.

*Franciscus, M. L., O.T.R., "O.T.: Where? How? Why?" *Occupational Therapy and Rehabilitation,* 25:137-140, 1940.

Hensie, Leland E., M. D., "Psychiatric Implications in Occupational Therapy," Psychiatric Quarterly, 11:544, 1937.

Licht, Captain Sidney, M. D., AUS, "Occupational Therapy in Reconditioning," *Occupational Therapy and Rehabilitation.* 23:169, 1944.

*McMillen, Louise, O.T.R., "Occupational Therapy—A Definitely Prescribed Treatment for the Neuropsychiatric Patient," *American Journal of Occupational Therapy,* 3:3-9, 1949.

*Mount, Lester Adran, M. D., "Peripheral Nerve Injuries Amenable to Occupational Therapy, "*American Journal of Occupational Therapy,* 2:330-332, 1948.

*Sammons, Dorothy Derby, "Arthritis," *Occupational Therapy and Rehabilitation,*" 24:13-22, February, 1945.

*Svensson, Viola W., O.T.R., "Occupational Therapy on an Orthopedic-medical Basis," *American Journal of Occupational Therapy,* 2:355-357, 1948.

*Willard, Helen S., and Clare S. Spackman, *Principles of Occupational Therapy.* Philadelphia: J. B. Lippincott Company, 1947. 416 pp.

Note: Only those titles bearing the * are referred to in the accompanying paper. All others are included as a matter of general interest and information as being directly applicable to the subject.

(*Continued from Page* 260)

Palsy Children". *American Journal of Mental Deficiency.* April, 1947.

19. Phelps, Winthrop M., "A Doctor Looks at Cerebral Palsy". *Hygeia.* March, 1948.
20. Phelps, W. M., "When a Child Has Cerebral Palsy". *Child,* XI, No. 12.
21. Phelps, W. M., "They are Individuals, Treat Them That Way". *Crippled Child,* June, 1947.
22. Phelps, W. M., "Cerebral Palsy Child Goes to School". *Crippled Child,* April, 1947.
23. Portenier, Lillian G., "Psychological Factors in Testing and Training the Cerebral Palsy". *Physiotherapy Review,* July 1942.
24. Rusk, Howard A., "But the Spirit Giveth Life,,'. *Survey,* April, 1949.
25. Strother, Charles R., "Evaluating Intelligence in Children Handicapped by Cerebral Palsy". *Crippled Child.* October, 1945.
26. Taibl, Anna Belle Crozier, "Academic Challenges of the Ataxic Child". *Journal of Exceptional Children.*



CLARE S. SPACKMAN, B.S., M.A., O.T.R.

A Biographical Sketch

by

ELIZABETH M. WAGNER, O.T.R.

Clare Spackman started her education in a progressive open-air school in Philadelphia, where she appears to have acquired the habit of acquiring education. As a loyal descendant of a long line of Philadelphians, immediately after graduation she entered the Philadelphia School of Occupational Therapy, then located on DeLancey Street. She received her O.T. certificate in 1930, as one of the School's youngest graduates.

Her first position was in Miss Merritt's department in New York City's Bellevue Hospital, which started her on the road that has led her to being one of the country's outstanding exponents of occupational therapy for physical disabilities.

From New York she returned to her native Philadelphia and worked for a short period at the Jeannes Hospital. Meanwhile, the Occupational Therapy School had taken up its new quarters directly across the street from the Graduate Hospital of the University of Pennsylvania. In 1932, Clare moved back into the environs of the School as assistant director of the Curative Workshop and also assistant director of the occupational therapy department of the Graduate Hospital. Some three years later she became director of both these units and she still holds these positions.

During this period Clare was not satisfied with having only two departments to run, so she entered the University of Pennsylvania as a candidate for a degree. The School of Occupational Therapy at that time was an independent institution, and the status of the School's certificate in relation to obtaining a degree at the University of Pennsylvania had not been determined. Clare decided that "in addition to her other duties" she would be the School's guinea pig. For a number of years she attended the University in the evening. As a result, in 1941, the certificate of the Philadelphia School of Occupational Therapy, combined with Clare's brains and determination paid off with her receiving not only her B.S. in Education but her Master's degree as well.

As if it were not enough to direct two O.T. departments, lecture to the Philadelphia School's students, give a superior course to her affiliated training students, and attend the University, she also devoted time, energy and brain power to helping make the American Occupational Therapy Association the well organized and productive body it is today. Her present position as treasurer of the society is only the latest of a long series of offices which include Chairman of the Constitution Committee, Speaker of the House of Delegates, member of the Education Committee, the Registration Committee, the Public Education Committee, and the Nominating Committee. Clare has been a Board Member, and she has been called to represent officially A.O.T.A. at important meetings of govenrmental and private agencies. She was also co-editor, with Miss Willard, of *Principles of Occupational Therapy,* which was published in 1947.

In preparing this article, when we got in touch with A.O.T.A. about her contribution to our professional society they "doubted if there was *any* position with the exception of president which Clare had not filled at some time." Her excellent record in these posts, some of them even more arduous than others, makes us rather take for granted the fact that under her direction the Association's budget is a balanced one.

No account of Clare Spackman should ignore her influence upon the endless procession of foreign students whom she has aided and comforted, guided and trained. Her wisdom and understanding have helped many girls from overseas to get the most out of what America has to offer both professionally and from the standpoint of having a good time.

Clare admits to detective stories as a hobby. But to the observer, driving all over the continent of

(*Continued on Page* 287)

FEATURED O.T. DEPARTMENTS

THE INTEGRATION OF OCCUPATIONAL THERAPY AND PHYSICAL THERAPY AT THE REHABILITATION CENTER OF SAN FRANCISCO, INC.

by
HAZEL E. FURSCOTT
ADMINISTRATOR

In its three and one-half years of growth, the program at the Rehabilitation Center of San Francisco has evolved into two entities. At the Center, we call these two programs (1) the Polio Unit and (2) the Industrial or General Rehabilitation Unit. In both programs, the occupational therapists and physical therapists work very closely together, and the patient is constantly being graded up in his activities in the two departments by the physical therapists evaluating what the occupational therapist is accomplishing and vice versa. To this purpose, we have introduced certain devices and techniques to bring about this departmental interrelation.



In the polio unit, the gravel walk and sand walk are located so that gait training over rough ground being taught by a physical therapist is in full sight of the occupational therapist who is working on this patient for upper extremity activities at some other interval during the day.

On entrance, the patient is seen by both the occupational therapist and physical therapist. Muscle examination, joint measurements, and functional activity tests to determine the patient's schedule are given by either the head of the occupational therapy department or the head of the physical therapy department with the other one acting as clerk. Thus, the patient is introduced to both departments and both departments are familiar with the patient's history, disability and abilities. Moreover, the occupational therapist has at this time the opportunity to see the patient undressed. Then, the physical therapist and occupational therapist in consultation determine the six-hour day, five-day week schedule. In both units, the program of the patient is outlined and the scheduling is so done that patients with like injuries or therapeutic needs are grouped, and group therapy is possible, both in physical and occupational therapy. For example, in the industrial workshop, an injured workman with a fractured back may have, as well as his heat and massage and individual table exercises, a class in back exercises, progressive resistance exercises to his legs, and work in the carpentry shop. His schedule will be so arranged that his classwork will come at the same time as other back injuries. Later, I shall again refer to the group therapy plan and its value.

It is our experience that propinquity is the secret of implementing the co-ordination of physical therapy and occupational therapy. Each unit occupies a floor of the Center and has its physical therapy department, gymnasium and occupational therapy shop fully equipped. This means a dupilcation of equipment but it has the advantage that the occupational therapist and the physical therapist who are treating the same patient can see at all times what the patient is doing in the complimentary therapy. To illustrate this point, the heavy resistance exercise equipment is right next to the occupational therapy shop, so that the occupational therapist may easily check exactly how much weight the patient is able to lift in the progressive resistance loading exercises and gauge his progressive work tolerance program to the patient's potentialities which have been determined in the physical therapy department.

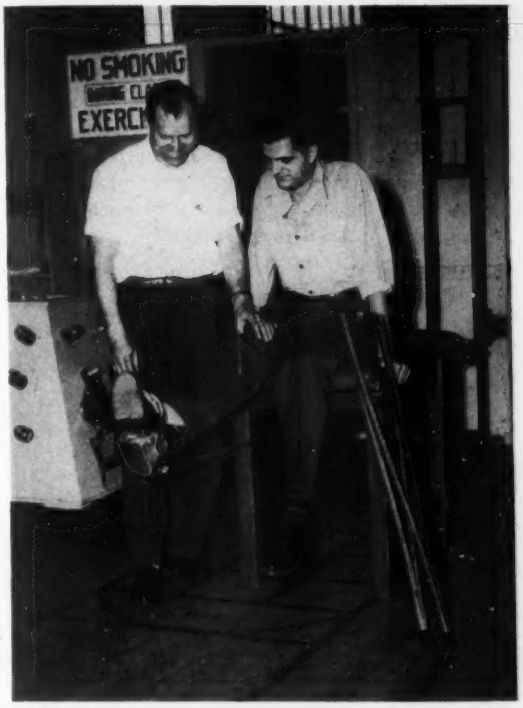
Another device that promotes the integration of departmental services is the general staff meeting and the unit staff meeting, each held once a week. In the general staff meeting, the program is varied. Very often, we have a moving picture which describes either physical therapy or occupational therapy or both. The staff and students from both departments attend. They become familiar with the techniques of both therapies. One member of the staff, responsible for a special program, may present its problems in general staff meeting and a lively discussion will give ideas and solutions for this particular problem, so that the program will be better tied into the total plan. In the unit staff meeting, the program of the individual patient is discussed and the physical therapist and the occupational therapist responsible for that patient's treatment in their respective departments, outline the changes in the program of the patient with the idea of the total patient in mind. The two

departments exchange their thinking and so come up with a better program for that individual.

The Center has interns in clinical training in both physical therapy and occupational therapy. No less than five hours a week are dedicated to didactic lectures and demonstrations to the interns by the staffs of both the physical therapy and occupational therapy departments. As the physical therapy interns attend the occupational therapy lectures and demonstrations and vice versa, here again is an example of mutual understanding of departments.

The common chart is another example of making the ideas and comments of one therapist available to the other therapist, both interested in the same patient. Functional tests, girth measurements, weight charts, workmen's capacity tests, and daily progress notes are available to all therapists at all times in one chart.

So far, I have generalized on the two units. I would now like to explain about the aims and program of each separate unit. The aim of occupational therapy in the treatment of industrial casualties is to return the injured workman to industry in the shortest possible time, in the best physical condition possible, and to retain the man as a working unit. In the industrial unit, the program is suited to the occupational as well as disability needs of the injured industrial worker and is based on the principle of work therapy. That is, his activities are planned to simulate "on the job" conditions of the individual patient. The patient uses the tools to which he has been accustomed and which it is hoped he will use again. He exercises with the same muscle groups as he would at work, thus building up both tolerance and discipline toward the physical capacities that will be called upon in his return to work. The patient can thus see his own progress and note his own ability or disability to carry on his job for a full work-day, every work-day. With the tools of his own trade, he does not have to learn new techniques, but builds up his physical resistance toward techniques that he feels have a definite purpose—that is, to return to work. For that reason, at the Center we do not use such activities as weaving or basket-making, or leather craft for carpenters, painters, and stage riggers. After three years of experience with industrial casualties in the occupational therapy department, it is my opinion that although an activity such as weaving may increase the function of a shoulder or elbow, it is not to be condoned as an activity for a carpenter, as it infers that he will never be able to handle a saw or a plane again. With his own tools and carefully graded activities, he will get the same functional exercise and at the same time, be building for his future. The psychological implications of work that seems to be



Resistance exercises given by a physical therapist are progressively graded to promote the strength of the quadriceps of this injured workman who is a warehouseman by trade. At this stage, he can only lift five pounds. His occupational therapy program will follow his weight lifting progress.

a pastime, although it may have a functional purpose, is disastrous in handling the anxious injured workman. This concept also offers a greater stimulus to the therapist to provide a graded program which will require as much muscular effort as the man will need at work. The therapist keeps the job of the injured worker in mind at all times, prescribing the graded program activities in accordance with his disability and in so doing, has a wider choice of activities than conventional weaving, cord knotting, and other craft activities. The injured workman has at his entry into the workshop and at intervals, a work tolerance test and a chart is kept which tests a man's ability and endurance of the physical requirements of his job, especially pointed toward those activities with which he will have the most difficulty from his particular injury. This presents a graphic illustration of a man's ability and disability that can be understood by the patient, the therapist, and the doctor. This work tolerance chart is included in the monthly report to the doctor on the patient's progress, and the doctor can, through the eyes of the therapist, thus determine a man's ability or disability to carry on his job.

In the industrial unit, the average treatment

period is six weeks, and average age of the patient is forty to forty-five years old. The injured workman of middle age must be able to return to his own job or a lighter form of his own job rather than a new job. His work aptitudes and standard of living are fixed, and it has been our experience that learning a new trade and being placed in it is almost the impossible in this age of assembly line industry and union apprenticeship age limits.



In the occupational therapy department, the injured warehouseman carries 25 pounds up and down the steps of the loading platform which simulates the exact height of the loading platform which he uses at work. He is having a work capacity test.

Just as the goal in the industrial unit is to get the workman back on the job, so is the aim in the polio unit to put the young poliomyelitis patient back into normal living. The patients in this unit are in late convalescence and the emphasis in both physical therapy and occupational therapy is on functional activities. Most of the poliomyelitis cases have had their hot packs and definitive muscle training in the hospital and their muscle disability is more or less static. The program, then, is to teach them how to use what they have left for home, school and the job. Of course, the patients in this unit are a much younger group than in the industrial unit. However, the same general principles are carried out and the same integration of physical therapy and occupational therapy is obtained.

In the polio unit, the Center has an orthopedic consultant, who comes once a week. In his evaluation clinic, the patient is seen at regular intervals by the occupational therapist and the physical therapist with the doctor. After a muscle test, and functional activities tests, his program is determined by the doctor and the heads of the two departments. Here, the general program as given by the occupational therapy department, includes muscle re-education and strengthening in group classes as well as the usual occupational therapy activities. The occupational therapy department is largely responsible for the upper extremities and the physical therapy department for the lower extremities. However, it must be said here, that occasionally an occupational therapist will be seen directing a gait training class and a physical therapist a shoulder class. The two types of therapists know so much about each other's work that sometimes they can be interchanged in assignments without difficulty.

In this unit, the patients are divided into three main groups, the ambulatory or those able to walk with or without crutches, the semi-ambulatory, those who are starting to learn to walk, but are in a wheelchair part of the day, and the total wheelchair case. Remedial occupational therapy—that is, coordination and endurance with occupational therapy activities—are carried out from the wheelchair or may include standing balance, coordination and endurance, either in the stander-upper or at the standing table. Daily habits classes in the practical arts of living are a large part of the program. These include self-care classes, dressing, undressing, personal hygiene, eating, communications, utilities, and braces, bathroom activities (either from wheelchair or crutches) wheelchair locomotion, learning how to handle wheelchairs indoors and outdoors (a by-product of which is the strengthening of the upper extremities in preparation to crutch walking) and household activities for housewives—that is, cleaning, cooking, sewing, child care, laundry, and planning adaptations in the home and/or home equipment for wheelchairs and crutches.

To determine the patient's work aptitudes whenever possible, work aptitude exploration is made part of the program by the occupational therapists observing the patient in the workshop. Diversional occupational therapy, such as crafts, games, music, etc., is included in the program for those patients who are not involved in the upper extremities, but who need rest periods from strenuous exercises such as is obtained in the mat exercise classes and the classes in gait training.

I have mentioned classes in both the industrial unit and in the polio unit. I would like to enlarge upon that by explaining how the group which makes up a class such as a mat class, an intermediate crutch class, or ceramics class is determined. Each individual patient in both units has an individual program determined by his doctor in conference with the physical and occupational therapist. By meticulous scheduling, it has been found that patients with the same disability needs can be grouped. As I have said, the patients are under treatment six hours a day, five days a week. Each

day is divided into half-hour group sessions, many classes being carried on simultaneously and the patient's individual program can thus be fitted into group therapy classes just as a college student arranges his program in order to get in the classes that he wishes as an individual within the group. It can well be imagined this inter-departmental scheduling of the patient's time means constant conference between the physical therapist and occupational therapist and again, acts in a salutory fashion to bring the two together in their mutual concern for the individual patient. The by-product from group therapy of socialization and stimulus to greater activity of the heretofore protected patient is obvious.

To summarize, by conscious design, inter-departmental coordination can become the most valued asset of a rehabilitation program. As the program at the Rehabilitation Center of San Francisco has developed, each facet of its many sides has been examined to see if another strategem may be employed to accomplish this desired end to the greatest good of the patient.

These are the fifth and sixth in a series of six histories of service of A.O.T.A. Standing Committees. The first four were published in the July-August and September-October issues of the current volume.

History of Service

LEGISLATIVE COMMITTEE

AMERICAN OCCUPATIONAL THERAPY ASSOCIATION

1946-1949

(With Supplement on Legislation)

1918-1936

Date Organized: 1946.

Purpose of Committee: To aid in establishing registration status for occupational therapy on a State Level, and to assist in establishing the requirements for occupational therapists on State and on Federal levels. (Letter to Chairman, Rules and Procedures Committee—July 14, 1947—from President of A. O.T.A.)

1947 A.J.O.T. Feb., p. 40: Report on outcomes of joint meeting with legislative committee of the American Physical Therapy Association, Dec. 12, 1946. Two most serious problems facing the two groups determined—(1) to prevent untrained or improperly trained personnel from practicing; (2) to require that qualification for professional therapists be duly outlined in Announcements by State or Federal Civil Service agents of competitive examinations in these services. Sample job sheets prepared by this Committee ready for distribution. (H. Elizabeth Messick, Chairman)

A.J.O.T. April, p. 110: Recommendations that occupational therapy positions requirements be so established as to include basic medical knowledge and to allow sufficient latitude for exercise of independent judgment under "duties and responsibilities"; that after positions have thus been established, the qualifications of individuals to fill the positions should be outlined. . . Report of new legislation introduced in the 80th Congress to commission occupational therapists, in one of the three Sections of the Women's Medical Specialist Corps in the Army. Bill, H.R. 1943 passed the House on March 13, 1947. Example cited of Maryland O.T.A. joining Maryland Chapter of A.P.T.A. to effect legislation at State Level. (H. Elizabeth Messick, Chairman)

A.J.O.T. Oct., pp. 298-300: Explanation of what it means for occupational therapists to be legally commissioned officers in the WMSC of the U. S. Army, created by Act of Congress on April 16, 1947. (H. Elizzabeth Messick, Chairman)

1949 A.J.O.T. Jan.-Feb., p. 55: The Committee has been assisting various State groups in the re-classification of occupational therapy positions from the subprofessional to the professional series in Civil Service. Proposal that a survey of the problems of State Associations in legislative and Civil Service matters be made through State delegates so that the Committee may know how best to assist with these problems.

March-April, p. 111: Committee membership reported by H. Elizabeth Messick, Chairman.

Formally presented by

Sister Jeanne Marie, O.T.R.

SUMMARY OF REFERENCES ON LEGISLATIVE WORK DONE BEFORE THE APPOINTMENT OF THE STANDING COMMITTEE

(By O.T. Students at The College of St. Catherine)

1918 Secretary of War approved the policy of physical reconstruction (including occupational therapy) of disabled soldiers.

1919 Aug. 1: Bureau Circular Letter No. 183 of the U. S. Public Health Service, interprets occupational therapy as "embracing manual handicraft and mental work for functional restoration and diversional employment."

1922 General Order No. 68, Jan. 18, U. S. Veterans Bureau, provides occupational therapy as a part of the hospital care and treatment, under the management of the medical officer in charge of the institution.

General Order 68A, Sept. 15, specfies further provision for occupational therapy in Veterans Hospitals.

1924 Wisconsin law passed requiring occupational therapy for all State T.B. San's. Legislation long preceded by recommendation that such patients receive open-air exercise in re-forestration at Camp on Tomahawk Lake. Reported in Archives of O.T., Vol. III, No. 2, April, 1924, p. 154.

General Order 69D, June 4, U. S. Veterans Bureau, further specifies occupational therapy in Veterans Hospitals.

1926 O.T.&R., Feb., pp. 1-23: summarizes U.S. Veterans Legislation for O.T.

pp. 25-33: presents the evolution of the National Rehabilitation Program, its organization and its cooperation with other agencies: 1920 Federal Civilian Vocational Rehabilitation Act passed; by 1925, thirty-nine States had legislation for accepting benefits of this Act, but Federal funds could not then be used for O.T., and only two States made physical restoration a part of rehabilitation at public expense. No mention made of O.T.

Dec., p. 444: At the 4th session of the Tenth Annual meeting of A.O.T.A., Mr. Oscar M. Sullivan, Director of Re-education of Disabled Persons, State Dep't of Education in Minn., read a paper on the Inter-Relation of O.T. and Subsequent Vocational or Industrial Rehabilitation.

1927 O.T.&R., Oct., pp. 341-8: The National Board of Medical Examiners and Medical Education policies explained by Everett S. Elwood; plea made for A.O.T.A. to prepare a national examination to serve as a basis for the national registration of occupational therapists.

June, p. 247: Report that U.S. Civil Service Commission has announced a competitive examination for O.T. aides—in five areas—Arts and Crafts, Trades and Industries, General Agriculture, Poultry Raising, and Gardening.

Aug., p. 253: W. F. Faulkes reports that Milwaukee Curative Workshop, by knowing and taking advantage of Industrial Accident Compensation, increased—through five years—its number of accident cases from 5 to 350 a year.

1928 O.T.&R., Feb., p. 11: T. Norman Dean reports the value of curative work in Workmen's Compensation Cases.

1931 O.T.&R., Feb., p. 67: National Register of occupational therapists urged.

1932 O.T.&R., Aug., p. 285: Kenneth Nelson reviews 10 years of Voc. Rehab. in Minn.

p. 338: Editorial Committee announces textbook for 1933.

1934 O.T.&R., June, p. 161: Hon. G. A. Hastings explains the Children's Charter.

Oct., p. 314: Reference to Nat'l Recovery Act in relation to T.B. patient.

1936 O.T.&R., April, pp. 145-147: Notice that A.M.A. permits A.O.T.A. Exhibits, and Report that Dr. Kovac goes to England for 6th International meeting on Physical Medicine.

June, p. 279; Reports Round Table with Am. Psychiatric Association.

Dec., p. 435: Proposal of Changes in A.O.T.A. Constitution.

1937 O.T.&R., April, p. 141: Clare Spackman makes eight suggestions to A.O.T.A. for affiliation of State Associations with National.

June, p. 219: Northern California makes ten recommendations for such affiliation.

Aug., p. 285: Draft of Constitution presented with proposed changes.

Oct., p. 349: Constitution and By-Laws presented.

1938 O.T.&R., April, p. 137: Introduces Meta R. Cobb as Executive Secretary of A.O.T.A.

p. 138: Constition and By-Laws presented.

June: Report that Mrs. Eleanor C. Slagle will accept invitation of American Association for the Advancement of Science to outline O.T. for Mental Patients. Records nomination of Mr. Everett Elwood (of Philadelphia) for A.O.T.A. President.

Dec., p. 439: Constitution and By-Laws presented.

1939 O.T.&R., Dec., p. 408: Miss Helen Willard reported Chairman, Ed. & Exam. Committee.

1940 O.T.&R., Feb., p. 45: Miss Marjorie Fish, Speaker of House, reported on establishment of standardization of rules governing occupational therapists.

p. 55: Editorial on Textbook.

p. 67: Constitution and By-Laws presented.

April, p. 141: First examination for registration printed (as given 11/18/3).

June, p. 215: Calls attention to meeting of industrial physicians & surgeons.

Oct., p. 365: Presidents of State O.T. Associations listed.

1941 O.T.&R., Feb., p. 47: Minutes of First Meeting of the House of Delegates.

June, p. 220: Miss Beatrice Wade reports work with Civil Service in Illinois.

p. 293: Miss Beatrice Wade conducting Survey of Civil Service in Illinois.

Dec., p. 413: Report of Committee on the Study of Cerebral Palsy.

1942 O.T.&R., Feb., p. 69: O.T. Continuation Study Course at University of Minnesota.

1943 O.T.&R., Oct., p. 247: Army expands its O.T. Program—report by Major W. E. Barton.

Dec., p. 305: Sixteen Committees of A.O.T.A. reported.

1944 O.T.&R., Aug., p. 205: Committee on Revision of Constitution recommends changes.

Dec., p. 281: Training Program for O.T.'s in the U.S. Army, evaluated by Major Walter E. Barton.

Note: The above summary of both internal and external changes which may have affected legislation is suggestive of reasons for the work of the Public Relations Committee's being taken over by the national office, for the separation of services so that the Legislative Committee concentrates on Civil Service relationships, both state and federal, and any new legislation through Congress, whereas a newly appointed committee will work on the revision of "the out-moded" Constitution, and the Committee on Rules and Procedures will restrict itself to channelling the work of standing and special committees through the national office. Of these four committees, that on Public Relations seems to have been dissolved, those on revision of the Constitution will probably use results brought out by that on Rules and Procedures before it is dissolved, and the Legislative Committee alone will remain a standing committee.

In addition to affording a basis for such speculation about trends among committees the above summary may serve to encourage members of A. O.T.A. to watch for particular legislation in:

Civil Service
Rehabilitation
Industrial Medicine
American Medical Association
American Psychiatric Association
American Congress on Physical Medicine
State Universities
National Foundation for Infantile Paralysis
National Society for Crippled Children and Adults
Workingmen's Compensation
Blue Cross and Blue Shield

* * * *

History of Service

COMMITTEE ON RESEARCH AND EFFICIENCY

AMERICAN OCCUPATIONAL THERAPY ASSOCIATION

1920-1949

Date Organized: 1920.

First printed reference found: February, 1924 issue of the Archives of O.T., Vol. III, No. 1, p. 47: Report of Sec.-Treas. refers to Miss Idelle Kidder as Committee Chairman.

First printed Committee Report found: April, 1924 issue of the Archives of O.T., Vol. III, No. 2, p. 135: Ratio of number of O.T. Aides to patients? Advisability of training hospital attendants to assist O.T. Aides? (Miss Kidder, Chairman).

1927 Feb. O.T.&R., Vol. VI, No. 1, pp. 51-53: Report recommending establishment of scientific analyses of cases treated by O.T., based on methods advocated

by the American College of Physicians and Surgeons. The O.T. should have executive and business ability. She should have a better system showing actual figures in chart form, a standard outline of which should be sent to each School. Inefficient Aides should be reported to this Committee. (May K. Kribben, Chairman)

1930 Oct. O.T.&R., Vol. IX, No. 5, p. 383: Committee requested to be discharged without formal report because of various professional changes among members. (Eleanor Clarke Slagle, Sec.-Treas.)

1931 Dec. O.T.&R., Vol. X, No. 6, p. 408: "Our president, Dr. Doane, in making the appointments for this important committee for the present year, had in mind the White House Conference on Child Health and Protection called by President Hoover . . . to prepare a report on occupational therapy for very sick children." Need stressed of cooperating with medical and educational authorities. Recommendation made that each School secure a copy of the Children's Charter and become familiar with its nineteen points. (Winifred Conrick, Chairman)

1933 Dec. O.T.&R., Vol. XII, No. 6, pp. 393-396: An excellent report of a general survey made, using questionnaire, concerning approach to child, record forms, etc. For details too numerous to record here, see especially p. 395. (Winifred Conrick, Chairman)

1939 April O.T.&R., Vol. XVIII, No. 2, pp. 103-114: Final Report on Survey. Very detailed. Much excellent material relative to the Cerebral Palsy field ten years ago. Excellent biblography. (Henrietta McNary, Chairman)

1942 Dec. O.T.&R., Vol. XXI, No. 6, p. 369: Name of Committee changed from Research and Efficiency to Scientific Study and Research. (Lucy Morse, Chairman)

1945 Oct. O.T.&R., Vol. XXIV, No. 5, p. 215:

1947 Jan. A.J.O.T., Vol. I, No. 1, p. 40: Three-fold program outlined—1. To become research-minded; 2. To develop research projects; 3. To advance the study of O.T. (Carlotta Welles, Chairman)

No. 2, p. 109: Manual of adapted equipment under preparation, with drawings and descriptions. (Carlotta Welles, Chairman)

No. 4, p. 251: Lack of real research methods deplored. Techniques of gathering data and of canvassing sources indentified. (Elsa Hill, Chairman, Sub-committee on Neuropscychiatry)

No. 6, p. 386: Board of Management acted to change name of Committee to Clinical Research and Service Committee. (Carlotta Welles, Chairman)

1948 April A.J.O.T., Vol II, No. 2, p. : (1) Collection and publication of sample forms of referral cards, case-study outlines, and progress records—to be sold from A.O.T.A. Office at 50c each. (2) Correspondence with various people, re: a representative who will attend the International Congress on Mental Health, in London during August, 1948; final decision — Mrs. Constance Owens, O.T.R., Liverpool, England. (3) Correspondence with Chairman of Committee on Medical Rehabiltation of the A.P.A., Dr. Chittick, re: plans of that Committee toward closer association with occupational therapists in the psychiatric field. (4) Correspondence with National Mental Hygiene Committee, re: closer association with A.O.T.A. program. (This organization has this year established committees on occupational therapy and recreation.) (5) Assistance with Institute Program for September, 1948. (Bertha Piper, Chairman, Sub-committee on Neuropsychiatry)

1949 Jan.-Feb. A.J.O.T., Vol. III, No. 1, p. 55: Miss Carlotta Welles, Chairman, reported to the Board of Management in September, 1948 that the Sub-Committee on General and Physical Function have completed approximately one-third of the number of pages to be included in the *Manual of Adapted Equipment*, that these have been submitted to two publishers for consideration, and that the cost of the first printing has been arranged for so that the royalties of 22c per copy ($3.00, retail price of the Manual) can be returned to A.O.T.A. to be used for a second printing. Miss Welles announced that two pilot plans for clinical affiliation rotation will be tried out by New York City and Los Angeles.

Formally presented by
Miss Marguerite Abbott, O.T.R.,
Assoc. Dir. Profnl. Courses,
Coll. of Physicians and Surgeons,
Columbia University, New York.

(*Continued from Page* 281)

North America should also be included as a characteristic pastime. But perhaps she does not mention her car as a hobby because she just considers it a part of the family.

During the last ten years the School of Occupational Therapy and the University of Pennsylvania have become more and more closely affiliated. On July first of this year the University of Pennsylvania announced the inauguration of its School of Auxiliary Medical Services, of which the Philadelphia School of Occupational Therapy is an integral part. To Clare's existing title of Assistant Director of the Philadelphia School of Occupational Therapy there has now been added Associate Professor of Occupational Therapy, University of Pennsylvania. May this new title be just one more of the many honors awaiting Clare Spackman.

* * *

The American Academy of Neurology announces the establishment of its new publication, Neurology: first issue in January, 1951. The editorial scope will embrace every aspect of clinical neurology, and special emphasis will be given to original papers on the results of practice and research.

* * *

The National Office Managers Assn. (N.O.M.A.) have pledged themselves to sponsorship of employment of disabled workers on a national scale.

This action took place on October 25, at the National Business Show in New York. The pledge was directed to the J.O.B. Committee of New York University-Bellevue Medical Center. J.O.B. (Just One Break) is a group studying the best methods of placing disabled workers.

In promising support, the N.O.M.A. stated that they do not have in mind mere token support but rather active participation to help widen and perhaps deepen the wealth of good that J.O.B. is doing.

AMERICAN OCCUPATIONAL THERAPY ASSOCIATION

33 West 42nd Street, New York 18

Executive Director, Wilma L. West, O.T.R.

OFFICERS

President

*Mrs. Winifred C. Kahmann, O.T.R.
Director, Occupational and Physical Therapy
Indiana University Medical Center, Indianapolis

First Vice President

*Miss Helen S. Willard, O.T.R., Director
Philadelphia School of Occupational Therapy
419 South 19th Street, Philadelphia 46, Pa.

Second Vice President

Miss Marjorie Taylor, O.T.R., Director
Milwaukee Curative Workshop
750 N. Eighteenth Street, Milwaukee 3, Wis.

Treasurer

*Miss Clare S. Spackman, O.T.R.
Director, Curative Workshop
Philadelphia School of Occupational Therapy
419 South 19th Street, Philadelphia 46, Pa.

BOARD OF MANAGEMENT

Delegates

Miss Violet Corliss, O.T.R.
Upshur Street Hospital
Upshur and 14th Sts., N.W., Washington 11, D.C.

Mrs. Veronica Dobranske, O.T.R.
Boston School of O.T.
Boston, Mass.

*Miss Ella Fay, O.T.R.
Cook County Hospital
Chicago, Illinois

Mrs. Blanche M. Ringel, O.T.R.
88 Forest Hill Pkwy.
Newark, N. J.

Eleanor Schreyer O.T.R.
V.A. Hospital
Buffalo, N. Y.

Miss Elizabeth Withers, O.T.R.
Director of Occupational Therapy
Crippled Childrens Hospital
2009 Lamar Avenue
Memphis, Tennessee

Fellows

Walter E. Barton, M.D., Superintendent
Boston State Hospital
591 Morton Street, Boston 24, Massachusetts

Freemont Chandler, M.D.,
6 N. Michigan Ave., Chicago, Ill.

Arthur C. Jones, M.D.
1020 SW. Taylor St., Portland, Oregon.

M. G. Westmoreland, M.D., Executive Secretary
College of American Pathologists
203 North Wabash Ave., Chicago 1, Ill.

Miss Catherine Worthingham
Director of Technical Education
National Foundation for Infantile Paralysis
120 Broadway, New York 5, New York

Board Members

Sister Jeanne Marie Bonnett, O.T.R.
Director of Occupational Therapy
The College of St. Catherine
St. Paul 1, Minnesota

Miss Marian Davis, O.T.R.
Supervisor O.T., Cal. State Dept. of Health
760 Market Street, San Francisco 2, Cal.

Miss Patricia Exton, O.T.R.
Menninger Foundation
Topeka, Kansas

*Miss G. Margaret Gleave, O.T.R.
Executive Director
Delaware Curative Workshop
101 West 14th Street, Wilmington, Del.

Mrs. Sue Hurt Gibbs, O.T.R.
Box 744, Staunton, Virginia

*Miss Elizabeth Messick, O.T.R.
Director O.T. Training Course
Richmond Professional Institute of
The College of William and Mary
901 W. Franklin St.
Richmond 20, Va.

*Lt. Col. Ruth A. Robinson, WMSC (OT)
Chief, Occupational Therapy Branch
Physical Medicine Division
Office of the Surgeon General
Washington 25, D.C.

Miss Carlotta Welles, O.T.R., Head
Occupational Therapy
Los Angeles County General Hospital
1200 North State St., Los Angeles, California

Honorary Board Member

William R. Dunton, Jr., M.D.
33 North Symington Road
Catonsville 18, Maryland

*Members of the Executive Committee

CLASSIFIED ADVERTISING

Classified advertising accepted for POSITIONS WANTED and POSITIONS AVAILABLE only. Minimum rate $3.00 *for 3 lines; each additional word ten cents. (Average 56 spaces per line). Copy deadline first of each month previous to publication.*

POSITIONS AVAILABLE

Southbury Training School, Southbury, Conn., newest institution for mentally deficient boys and girls, has vacancy for therapist in a progressive program of occupational therapy. *Excellent maintenance* (optional), paid vacations, annual increment, retirement, hospital and insurance plans. New salary scale in effect. O.T. $2820, Senior O.T. $3480, plus cost of living increase of $240.00. Write: Frederick A. Klauminzer, Director of Training.

Applications invited from Graduate Registered Therapists, either man or woman, for a position of responsibility in a large psychiatric hospital in the East. Progressive, well organized department. Student training program, good living conditions. Civil Service and excellent opportunity for advancement for a therapist who has proven or can demonstrate ability. Outline experience first letter. Write O-5, American Journal of Occupational Therapy.

Wanted—occupational therapist to head and develop department in 450 bed general hospital. Write Administrator of Baroness Erlanger Hospital, Chattanooga, Tennessee.

Occupational Therapists for large psychiatric hospital located in New England. Progressive, all-inclusive program for patients. Student affiliations with excellent educational program. Modern home, good food. Maintenance optional. Liberal retirement plan and illness policy. Paid vacations and holidays. Write to Director of Occupational Therapy, Norwich State Hospital, Norwich, Connecticut.

Occupational Therapists wanted for large psychiatric hospital in Connecticut. Student training affiliations. Maintenance optional, paid vacation and holidays, retirement and insurance plan. Address Doctor Edgar C. Yerbury, Superintendent, Connecticut State Hospital, Middletown, Connecticut.

O.T.R. for work with crippled children. Well equipped department. Starting salary $190 plus maintenance and uniform laundry. Write to Ann Carlsen, Supt., Crippled Children's School, Jamestown, North Dakota.

Interesting opening for Director of Occupational Therapy in 175 bed county institution with high standards of medical and extra medical services. Address inquiries to Miss Carolyn Higgins, Director of Extra Medical Services, Mahoning Tuberculosis Sanatorium, 4880 Kirk Road, Youngstown, Ohio.

Assistant Occupational Therapist wanted in home for aged and chronic hospital. Full maintenance available if desired. Write Mrs. Martha Winfield, O.T.R., Levindale Hebrew Home and Infirmary, Baltimore 15, Maryland.

WANTED: Registered Occupational Therapist to take charge of department in a modern progressive tuberculosis sanatorium located adjacent to Duluth in Minnesota's famous Arrowhead Country. Civil Service. Good Salary. Write: Dr. G. A. Hedberg, Superintendent, Nopeming, Minnesota.

Newly formed C. P. Clinic needs qualified O.T.R. to organize and run O.T. Dept. Send credentials and references. Salary open. Utica C.P. Clinic Kernan School, Utica, N. Y.

California needs THERAPY TECHNICIANS now for jobs in State Depts. of Public Health and Mental Hygiene. Nationwide examinations for OCCUPATIONAL THERAPIST, GRADE 1, starting at $2,916 with no previous experience necessary; for OCCUPATIONAL THERAPISTS, SERVICES FOR HANDICAPPED CHILDREN, starting at $3,372 with one year of experience necessary. Write to Recruitment Section, Dept. 0-6, State Personnel Board, 1015 L Street, Sacramento, California.

Immediate opening for O.T.R. to supervise ambulant and bedside O.T. program for 250-bed tuberculosis hospital in Richmond, Va. Student training affiliations. Salary range $225-250. Write to Miss Margery Peple, O.T.R., Chief of Rehabilitation, Pine Camp Hospital, Richmond, Va.

WANTED: Occupational Therapist to assist in a progressive 240-bed tuberculosis sanatorium in the Midwest, near Detroit and Ann Arbor. Program closely allied with the State vocational rehabilitation program. Maintenance optional, five day week, retirement plan, and illness policy. Write to Occupational Therapist, Oakland County Tuberculosis Sanatorium, Pontiac 11, Michigan.

Positions open for registered occupational therapists. Psychiatric hospital — 1600 capacity. Salary $205 per month plus maintenance. Good opportunity for new graduates. Excellent staff cooperation with emphasis on functional use of O.T. Contact—Patricia Thornton, O.T.R., Director of O.T., Cherokee State Hospital, Cherokee, Iowa.

Chief occupational therapist for Cerebral Palsy Treatment Clinic, Charleston, West Va. Five day week, one month vacation with pay, sick leaves as needed. Excellent opportunity for advancement. Write Mrs. J. F. Haydu, Executive Secretary, Kanawha Co. Soc. for C.C., 214 Professional Bldg., Charleston.



Recalling the friendliness of those we have had the pleasure of serving during the past year, we gratefully express our *Thanks to you and extend to you our greetings for*



The Staff of the
American Journal of Occupational Therapy

Money Savers Time Savers

LEATHER PROJECTS in BULK



Precision cut — Quality Leather Kits

Prepared especially for you. Popular projects in your choice of the finest leathers at the best prices.

Write today for price sheet of Amco special cut projects in bulk.

Free! New revised 80 page general crafts catalog. Order your copy today.

American Handicrafts Company, Inc.
MAIN OFFICE AND MAIL ORDER DEPT.
25-29 SOUTH HARRISON ST., EAST ORANGE, NEW JERSEY
RETAIL STORES

Irish Linen Yarns

WARP **WEFT**



HEADQUARTERS for Hand Looms and Weaving Supplies

Golden Rule • Linen • Cotton Wool • Carpet Warp • Rug Roving Lily Mills Cottons

LOOMS

LECLERC • STRUCTO • MISSOURI
HAMMETT • UNION • GALLINGER
STEEL HEDDLE • REEDS • FRAMES
HEDDLES

TEXT BOOKS: All Popular Editions Carried in Stock

Large Variety of Flat-Rug-Boat Shuttles Always in Stock

SWEDISH BOBBIN WINDERS
LUREX METALLIC YARNS
CONSULTANT SERVICE

CATALOG and SAMPLE BOOK . . . 35c

Free to Institutions if Requested on Institution Letterhead

Hughes Fawcett, Inc.

DEPT. 950T

115 Franklin Street New York 13, N. Y.

A book every hobbycrafter should have



May we send it to you FREE?

It's the new 12-page X-acto Craft Catalog. Handsomely illustrated, describes the entire X-acto handicraft line.

LEATHERCRAFT TOOLS
PLEXON ARTCRAFT STRIP to wrap, lace, braid
METALCRAFT KITS for complete projects
WOODCARVING KIT
TRIX and ELEKTRIX Model Engineering System

Points the way to a lifetime of fun with hobbies. Send for it today.

X-acto* *Reg. U. S. Pat. Off.

HOBBY KNIVES and TOOLS

X-acto Crescent Prod. Co., Inc. 440 4th Ave., N. Y. 16

semi-precious
STONES
for jewelry and metalcrafts



GREEN ONYX CABOCHONS—beautifully polished, oval ring size **$1.50 ea.**
CHINESE JADE SCARABS—nice green color ..... **$2.75 ea.**
TURQUOISE or CORAL—oval cabs, good size ..... **$1.35 ea.**
10 DIFFERENT STONES—all excellent ..... **all 10 for $10.00**
IMPORTED JEWELERS SAW BLADES—unbelievably sharp and long lasting . . . . **50c doz. . . . $5.50 per gross**
EARRING CLIPS . . . **25c pr.**
EARRING SCREWS (sterling) . . . **50c pr.**

mail orders given prompt attention:
your money back if not thoroughly delighted
Intriguing booklet! lists stones, supplies, findings. Free on request.

SAM KRAMER

dept. O. 29 W. 8th St. New York City

• O.T. HANDICRAFT PACKET

LEISURECRAFTS HAVE CONSOLIDATED A JUMBO-SIZED PACKET of up-to-date leaflets and folders on all phases of handicrafts available to YOU in Occupational Therapy. Chock full of information on leathercraft, textile painting, braiding, etching, copper work, shell crafts, clays, wood projects, ceramics, art materials, plastics, and many, many more.

Also enclosed in your JUMBO O.T. handicraft packet is the NEW 1951 "HANDBOOK OF HANDICRAFT SUPPLIES," 80 pages of information and illustrations that will aid you in your craft instructions.

Send ten cents in coin to cover handling for your special O.T. Handicraft packet.

LEISURECRAFTS

907 So. Hill O.T. Dept. Los Angeles 15, California

LET'S GET ACQUAINTED!

Because we want to get acquainted with more readers of American Journal of Occupational Therapy, we are making this special $1.00 offer.

Patterns for:

5 Beautiful plastic gifts
10 Handsome wooden shelves
48 Easy-to-make garden ornaments

Plus:

80-Page craft and hobby handbook

We believe ours is the most complete line of handicraft books, plans, tools and materials available anywhere. And we believe you will enjoy doing business with us. Let's get acquainted! Send $1.00 today.

JACKSON STUDIO

7927 Milwaukee Bl. Milwaukee 13, Wisconsin

EVERYTH'NG FOR LEATHERCRAFT

Tools—Lacing—Accessories—Instruction Books—Patterns

TOOLING and NON-TOOLING CRAFT LEATHER
Calf—Goat—Morocco—Sheep—Skivers

CARVING COWHIDE—Backs—Sides—Shoulders

COMPLETE KITS READY TO ASSEMBLE
Wallets—Keycases—Coin Purses—Link Belts

Write today for our latest Catalogue . . . It's FREE

CROWN LEATHER CO.

22 Spruce St. New York 7

UNION LOOMS

Thousands of Union Looms are in use in occupational therapy, vocational rehabilitation and educational projects.

Union Looms are primarily designed for profitable home weaving, and over 30,000 are in such use. Equipment right for economic purpose is also desirable for institutional use.

Union Looms are the most practical looms on the market for all around hand weaving. Price for the loom, complete, threaded with 10 yds. warp all ready to weave is only **$59.50**, F.O.B. Boonville, N.Y.

Send for free loom booklet.

UNION LOOM WORKS

122 Factory St Boonville, N. Y.

SHELLCRAFT SUPPLIES

Send for free catalog of Shell, Metal and Plastic parts for costume jewelry and novelties.

Florida Supply House, Inc.

413-419 12th Street, Bradenton, Fla.

DISTINCTIVE YARNS



FOR EVERY PURPOSE

CREATIVE WEAVING with HOME YARNS

Here are the exciting threads you have been looking for - -

a wide variety of novelty yarns, plus a large selection of washable and non-tarnishable metallics—yarns that can be standardized as to type and size and sold in quantity to suit your home craft needs.

HOME Yarns are identical with those being used by leading manufacturers of upholstery, draperies, dress materials, millinery — yarns that make weaving fascinating—that spur you on to create new and startling designs.

Sample card sent gratis promptly upon request.

HOME YARNS CORP.

42 Lexington Ave., Dept. D New York 10, N. Y.



NO FUSS! NO MUSS!

DRAKENFELD
Semi-Moist
OVERGLAZE COLORS
UNDERGLAZE COLORS

Just "pick-up" Drakenfeld's semi-moist overglaze or underglaze colors with a water-moistened brush and apply directly to ware. No oils or other mediums necessary. Any of the 12 colors can be blended in the handy cover. Refill pans available.

Write for catalog and prices on these new easy-to-use Semi-Moist Overglaze and Underglaze Color Boxes . . . also prepared glazes, clay bodies, electric ceramic kilns and other high quality supplies.

Drakenfeld

B. F. Drakenfeld & Co., Inc.
45-47 Park Place, New York 7, N. Y.

Everything for the Craftsman

MATERIALS • TOOLS • INSTRUCTIONS



QUALITY PRODUCTS

PROMPT SERVICE

RAFFIA
FELTCRAFT
BEADCRAFT
CHIP CARVING
WOODBURNING
RUBBER MOLDS
BLOCK PRINTING
TEXTILE PAINTING

PLASTICS
BRAIDING
KNOTTING
CORKCRAFT
SHELLCRAFT
METALCRAFT
LEATHERCRAFT
GLASS ETCHING

WRITE DEPT. A-4

Send for your catalog today!

DEARBORN LEATHER CO.
8625 LINWOOD AVENUE
DETROIT 6, MICHIGAN



SHOW YOUR PATIENTS HOW TO MAKE

COSTUME JEWELRY

ENGROSSING WORK • LOW UNIT COST • HIGH RE-SALE VALUE

EARRINGS
SCATTER PINS
BRACELETS
NECKLACES
CHAINS

RHINESTONES
MOONSTONES AND PEARLS
SEQUINS AND BEADS
EARRING SCREWS
COVERED EARRING BUTTONS

SEND FOR FREE CATALOG

Schmit & Son
2025 EUCLID AVENUE
CLEVELAND 15, OHIO

REQUEST YOUR FREE BUYERS' GUIDE *TODAY*— FOR WONDERFUL

WYCO BRAND YARNS

and our complete line of knitting and crocheting accessories —

For occupational therapists whose needs in the knitting and crocheting line are varied, our Buyers' Guide is a wonderful pamphlet to have on hand at all times. In it you'll find descriptions of our fine knitting yarns, Argyle Sock Kits made of shrink-resistant, 100% virgin wool, and a complete line of knitting needles, crochet hooks and other accessories. Write today for your FREE Buyers' Guide. WE GIVE WHOLESALE PRICES TO ALL OCCUPATIONAL THERAPISTS.

Orders filled the day received except in unusual cases.

WISSAHICKON YARN COMPANY
JENKINTOWN 8, PA.

AT YOUR FINGER-TIPS

Get your free copy of Hammett's new catalog listing and illustrating occupational therapy materials and equipment.

LOOMS
Hand or Foot Power

WEAVING MATERIALS
Roving Wools
Carpet Warp Rug Yarns

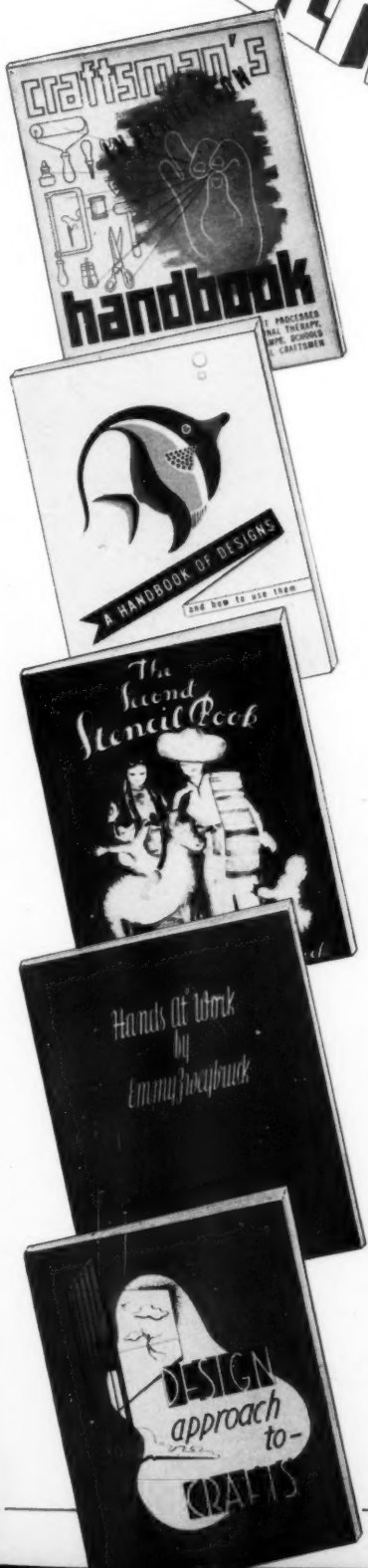
BASKETRY MATERIALS
Reed — Raphia — Cane
Wooden Baskets and Trays
Corkcraft Plastics

ART MATERIALS
Leather and Tools

SEND FOR THE CATALOG TODAY!

J. L. HAMMETT CO.
Educational Materials Since 1868
306 Main Street Cambridge, Mass.

IDEAS! IDEAS! IDEAS!



BOOKS TO HELP MAKE ART CLASSES MORE INTERESTING- MORE CREATIVE

Packed with fresh, stimulating ideas and techniques! Hundreds of them at your fingertips to keep interest in art activity alive. Enjoy yourself and help develop skills you never knew your student possessed!

CRAFTSMAN'S INSTRUCTION HANDBOOK
by Tony Parisi

The most popular craft book on the market! Covers more than 250 craft techniques and applications — from simple batik and basketry to advanced projects in metal work and silk screen printing—all in convenient step-by-step form that are easily applied to materials of all kinds. Price **$1.50**

HANDBOOK OF DESIGNS
by Gordon de Lemos

Stre-t-c-h your creative thinking with this useful book of smart designs for every purpose. Guaranteed to appeal to every taste and interest. Included are easy-to-follow explanation "tips" to simplify your work. Size 9" x 12", 118 pages. Price **$2.50**

THE SECOND STENCIL BOOK
by Emmy Zweybruck

Written by an internationally-known teacher, designer, and lecturer. This lively treatise details her special stencil process and offers many suggestions for producing charming results in posters, greeting cards, place cards and similar projects. Nine full color pages and 28 black and white illustrations. Price **$1.00**

HANDS AT WORK
by Emmy Zweybruck

Another delightfully illustrated book by the same author. It covers complete instructions in block printing, embroidery, cross stitch, jigsaw work and silk screen, as well as stenciling on fabrics and paper; designs for linens, draperies, garments. Spiced throughout with 64 black and white illustrations, 2 color pages. Price **$2.00**

DESIGN APPROACH TO CRAFTS
by Harriet E. Knapp

Here is the book designed to develop a better appreciation of the professional craftsman attitude toward his work. It shows the student how to combine the best in design and technique in easy enjoyable reading. Size 7¾" x 10¼", 138 pages, 144 beautiful photographs and illustrations. Price **$3.50**

Add a new "spark" to your thinking with this inspirational source material! See them on display at your local dealer or order direct. Dept. OT-14.

the **american crayon** company
new york

LARSON
The Foremost Name in
LEATHERCRAFT



A dependable source of supply for the finest occupational therapy projects

LARSON LEATHERCRAFT

COMPLETE STOCK

Every leathercraft need you encounter in any Occupational Therapy program can be filled from our large and comprehensive stock. Included is everything from the simplest ready-cut kits for beginners to leathers, materials and tools for the most advanced leatherworkers.

HIGHEST QUALITY

Our grading standards for leather are unusually high, and we exercise rigid control of the quality of all materials. We cut our own leather lacings and ready-cut kits.

PROMPT SHIPMENT

You experience no delays in receipt of items ordered from us. Our established policy is to make shipments the same day orders are received.

WRITE TODAY FOR FREE CATALOG

Our newest 24-page illustrated catalog includes complete supplies and top-quality leathers for both beginners and advanced leatherworkers.



J. C. LARSON COMPANY

America's Most Complete Leathercraft Stock

Dept. 712

820 South Tripp Ave. Chicago 24, Illinois

ccupa-
ge and
m the
aterials

gh, and
terials.

d from
e same

NY
lock

llinois